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COMPUTERS IN HIGHER EDUCATION--EXPENDITURES, SOURCES OF FUNDS, AND UTILIZATION FOR RESEARCH AND INSTRUCTION 1964-65, WITH PROJECTIONS FOR 1968-69. A REPORT ON A SURVEY.

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THIS SURVEY RELATES ESTIMATES ON (1) AMOUNT AND SOURCE OF COLLEGE AND UNIVERSITY EXPENDITURES FOR COMPUTERS IN RESEARCH AND INSTRUCTIONAL ACTIVITIES, (2) AVAILABILITY OF COMPUTERS AND DISTRIBUTION OF RESEARCH AND INSTRUCTIONAL USAGE IN GRADUATE AND UNDERGRADUATE ACADEMIC AREAS, AND (3) DEGREE PROGRAMS OFFERED IN COMPUTER SCIENCE. A STRATIFIED RANDOM SAMPLE OF APPROXIMATELY 700 OF THE 2,200 INSTITUTIONS OF HIGHER EDUCATION WAS EMPLOYED TO OBTAIN ESTIMATES FOR THE ENTIRE POPULATION. RECOMMENDATIONS ARE MADE FOR FURTHER STUDY. (HW)

ED016302

Computers in higher education

Expenditures, sources of funds and utilization for research and instruction, 1964-1965, with projections for 1968-1969.

Southern Regional Education Board

EA 001 128

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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COMPUTERS IN HIGHER EDUCATION

Expenditures, Sources of Funds, and Utilization for Research and Instruction 1964-65, with Projections for 1968-69

A Report on a Survey Conducted
Under a Contract with the
National Science Foundation

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August, 1967

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I. DISCUSSION

A. INTRODUCTION

1. Need for Data on Computers in Colleges and Universities

Long before the often-mentioned Rosser Report[1] was completed it became obvious to many government agency officials that a very rapid expansion of the computer facilities of colleges and universities was in the offing. The nation's research and development programs, particularly those related to the nation's defense and space efforts, were already heavily dependent upon the computer. The need for more and more computers in the colleges and universities was foreseen in order for their research programs to keep pace with governmental and industrial research activities, and for their graduates to be knowledgeable as to their use. At the same time it was predicted that the nation's higher institutions must begin to educate thousands of computer scientists and computer technologists.

The Mathematical Sciences Sectior of the National Science Foundation developed and tested a questionnaire which could be used to provide the kind of information needed for future planning of the relevant government agencies. This questionnaire, with only minor revisions, was used in the survey reported on in this document. (See Appendix E for complete copy of Questionnaire.)

2. Purpose of Survey

How much are colleges and universities spending for computers in their research and instructional activities and where does the money come from? What computers do they have and expect to have, how is the research and instructional usage distributed over academic area and undergraduate vs. graduate use? What degree programs are being offered in computer science and how many students are getting computer education? These are some of the questions answered by the results of a statistical survey carried out during the 1967 fiscal year by the Computer Sciences Project of the Southern Regional Education Board with the support of the National Science Foundation. Fiscal year 1965 was used as the base year for actual expenditures and sources of funds and fiscal year 1969 was used for projections by the institutions.

A stratified random sample of approximately 700 of the 2200 institutions of higher education was employed to obtain estimates for the entire population. (See Appendix A for details of the sampling design.)

B. DISCUSSION: ALL INSTITUTIONS

1. Total Expenditures

103 million ($) was spent on computer equipment and its operation for research and instructional purposes by the nation's colleges and universities

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[1] Digital Computer Needs in Universities and Colleges (Rosser Report) National Academy of Sciences, National Research Council, Washington, D. C., 1966, 176 p.

during fiscal year 1965. An additional 41 million ($) was contributed by the computer manufacturers in the form of educational allowances on purchases and rentals, gifts of equipment and other assistance. For the fiscal year 1969 the institutions expect to spend 276 million ($) for the same purposes. The manufacturers will contribute an additional amount which is not likely to be too different from the 41 million of 1965 because of the recent lowering of educational discounts. During FY 65, 30 million ($) was spent on salaries for approximately 5000 staff members at all levels with an expected increase to 69 million ($) for FY 69 on twice as many staff. Nearly 50 million ($), or almost one-half of the total expenditures, was spent on computers and peripheral equipment in the form of purchases, maintenance, and rentals. To this should be added the more than 40 million ($) contributed by the manufacturers which brings the total value to 90 million ($) for computer equipment used by the higher institutions for research and instruction during FY 65. For FY 69 the total value of hardware is estimated to be approximately 180 million ($) with the manufacturers contributions remaining at about the 40 million ($) level (This is a calculated guess, not a statistical estimation.). Total capital expenditures, i.e., costs of purchases of equipment, (including computer purchases) buildings, and furniture, are expected to increase from around 25 million[1] ($) in FY 65 to about 70 million in FY 69.

These items along with further details are presented in tables 1, 2, and 3. (The population estimates have been superimposed on an exact copy of the corresponding part of the questionnaire for the readers' convenience.)

2. Sources of Funds

Of the 103 million ($) expended[1] by the institutions in FY 65 over 43 million ($) (40%) came from Federal government agencies in the form of contracts and grants. Nearly 25 million ($) of these Federal funds were designated "primarily for computer activities." General institutional funds contributed 51 million ($) (47%). For FY 69 the institutions are expecting 109 million ($) (39%) of the 276 million ($) total to come from Federal sources and to increase "their own" expenditures to 142 million ($) (51%) (see table 4.).

Of the 25 million ($) in Federal funds which were labeled "primarily for computer activities" over 13 million ($) was designated for rental or purchase of equipment and buildings; 7 million was spent for their operation; 3 million was used to pay for computer time for research, development, and graduate instruction; less than $\frac{1}{2}$ million was used to pay for computer time for undergraduate instruction; and nearly $1\frac{1}{2}$ million for Computer Science Activities. For such purposes the schools are expecting a two to four-fold increase in assistance from federal and non-federal sources for FY 69. The total is estimated to go from 32 million in FY 65 to 86 million (see table 5) in FY 69. (These figures are obtained by summing across rows C and D.)

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[1]This figure differs from that shown in table 4 since a few institutions reported on FY 66 because records "were not available" for FY 65.

Item III.

Table 1 (from page VI-A-39)
Current Expenditures for Digital Computer Activities
by Cost Items and Number of Personnel
All Institutions
SAMPLE SIZE 669 POP. SIZE 2219

Cost Item		1964-5	1968-9 Projection
A. Current (1964-5) and Projected (1968-9) expenditures for digital computer activities			
1. Equipment rentals		27,296,000.00	88,607,000.00
2. Rental or costs for building space to house computer activities		1,605,000.00	5,087,000.00
3. Maintenance costs not already included in (1) or (2)		2,451,000.00	4,524,000.00
4. Salaries and wages of personnel.....	Total	29,897,000.00	69,464,000.00
a. Systems and utility programmers		9,661,000.00	25,873,000.00
b. Administrative and other professional		10,248,000.00	23,363,000.00
c. All other (e.g., keypunch and other operators, clerical, technicians)		9,971,000.00	20,211,000.00
5. Costs for purchase of off-campus computing service		625,000.00	761,000.00
6. Other direct costs (including materials and supplies)		6,985,000.00	14,437,000.00
7. Indirect costs (general institutional administrative and general expense allocation)		9,615,000.00	23,870,000.00
Total		78,518,000.00	206,799,000.00

B. Please indicate full time equivalent number employed for items 4 (a), 4 (b), and 4 (c) above:		Number of Personnel	
		1964-5	1968-9 Projection
1. Systems and utility programmers		1,335	3,083
2. Administrative and other professional		1,081	2,164
3. All other (keypunch and other operators, clerical, technicians, etc.)		2,428	4,478
	Total	4,862	9,741

Item IV.

Table 2 (from page VI-A-39)
Capital Expenditures for Digital Computer Activities
All Institutions
SAMPLE SIZE 669 POP. SIZE 2219

Year	Item			Total
	Computers and Peripheral Equipment	Buildings to House Computer Activities	Furniture, Fixtures, and other Equipment	
1964-5	18,847,000.00	4,287,000.00	1,352,000.00	24,494,000.00
1965-6 projection	17,449,000.00	8,238,000.00	1,305,000.00	27,004.000.00
1966-7 projection	27,800,000.00	14,921,000.00	2,132,000.00	44,864,000.00
1967-8 projection	21,179,000.00	26,603,000.00	2,630,000.00	50,422,000.00
1968-9 projection	43,896,000.00	21,606,000.00	3,957,000.00	69,469,000.00

Item VI.

Table 3 (from page VI-B-38)
Additional Institutional and Manufacturers' Contributions
All Institutions
SAMPLE SIZE 669 POP. SIZE 2219

A. Adequacy of charges as á means of support for sponsored research and development projects

1. Did money received from sponsored R&D projects for computer usage equal the amount actually used in the case of

   a. R&D projects sponsored by the Federal Government — _____ Yes 149 No

   b. R&D projects sponsored by non-Federal agencies (excluding institution's own funds) — _____ Yes 104 No

2. If "no" in 1 (a) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by Federal agencies. — 6,314,000.00

3. If "no" to 1 (b) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by non-Federal agencies. — 2,135,000.00

B. Equipment manufacturers' contribution

1. Estimated contributions toward purchase and/or rental of equipment made available from manufacturers in the form of discounts, allowances, etc., 1964-5.

Current Expenditures	25,021,000.00
Capital Expenditures	16,386,000.00
Total	41,411,000.00

Item II. Table 4 (from page VI-A-39)

Current and Capital Expenditures for Digital Computer Activities,* by Source of Funds for Reporting Period

All Institutions

SAMPLE SIZE 669 POP. SIZE 2219

Source of Funds	Current expenditures (1)	Capital** expenditures (2)	Total Col. (1)+(2) = (3)	Projected 1968-9 Total
A. Federal Government:				
1. Contracts and grants primarily for computer activities ***	17,263,000.00	7,385,000.00	24,651,000.00	62,624,000.00
2. Other contracts and grants	15,452,000.00	3,068,000.00	18,523,000.00	46,237,000.00
B. Institution's own funds	38,793,000.00	11,919,000.00	50,720,000.00	142,105,000.00
C. Other sources (gifts, contracts, and grants from industry, State and local governments, etc.)	7,022,000.00	5,999,000.00	13,023,000.00	25,135,000.00
D. Totals	78,544,000.00	28,382,000.00	106,935,000.00	276,119,000.00

* Activities includes everything except the use of the computers for the institution's own administrative affairs.

** Includes purchases of computer and peripheral equipment.

*** Total in column (3) should equal the total of all entries in Item V-A.

Table 5 (from page VI-B-38)

Item V. Expenditures of Funds Intended by the Funding Agency to be Used Primarily for the Support of Computer Equipment, Buildings, and Activities

SAMPLE SIZE 669 POP. SIZE 2219 All Institutions

Sources of Funds	Digital Computer Equipment or Buildings		Computer Time for		Computer Science Activities* (5)
	Rental or Purchase Cost (1)	Operating Cost (2)	R&D & Grad. Instruction (3)	Undergrad. Instruction (4)	
2. Sums of all other Federal Grants and Contracts (individual rates of less than $50,000 per year)	,000.00	,000.00	,000.00	,000.00	,000.00
** Total Federal	13,369,000.00	6,912,000.00	3,178,000.00	413,000.00	1,447,000.00
B. Non-Federal Grants and Contracts: 1. Annual Rates Greater than $50,000 (identify)					
a.	,000.00	,000.00	,000.00	,000.00	,000.00
b.	,000.00	,000.00	,000.00	,000.00	,000.00
c.	,000.00	,000.00	,000.00	,000.00	,000.00
d.	,000.00	,000.00	,000.00	,000.00	,000.00
2. Other non-Federal Grants and Contracts	,000.00	.000.00	,000.00	,000.00	,000.00
Total Non Federal	3,387,000.00	1,119,000.00	1,073,000.00	504,000.00	725,000.00
C. Total of A and B, 1964-5	16,759,000.00	8,033,000.00	4,254,000.00	918,000.00	2,175,000.00
D. Total Projected, 1968-9	40,582,000.00	20,084,000.00	14,285,000.00	3,657,000.00	7,555,000.00

*Computer Science Activities: Includes institutes, academic programs support, fellowships, etc.

**Includes Federal Grants and Contracts in excess of $50,000 per year from previous page of questionnaire.

3. Number of institutions with computers and number of computers in the institutions

An estimated 32% or 700, of the 2200 institutions had 1000 computers by January, 1967. Estimates for 1966-1970 are presented in table 6. Detail estimates by strata of the number of institutions with computers as of January, 1967 are given in Appendix B, Table 1, and estimates of the number of computers installed, on order, and to be placed are presented in Table 2 of Appendix B.

TABLE 6

Date	No. of Schools with Computers for Research and Instruction	No. of Computers* in Schools for Research and Instruction
January 1966	600	900
January 1967	700	1,000
January 1968	800	1,100
January 1969	900	1,200
January 1970	1,000	1,300

Table 7 gives the estimated frequencies of occurrence of various computer systems reported in the survey. Of the estimated 858 computers installed as of June 30, 1965, over half (442) were leased, 291 were purchased, and the remainder were mixed, i.e., some units purchased, others leased. An additional 518 computer systems were estimated to have been on order by Fall, 1966, and were to be replacing an estimated 236 installed systems. The models are listed in order of frequency of installation (as of approximately June 30, 1965). No further ordering was attempted for equal frequencies. (Some of the abbreviations that are not immediately recognizable are MCD=McDonnell Automation Center, COR=Cornell, TUC=Triangle Universities Computer Center, WDP=Western Data Processing Center, TSH=Time-sharing, FS=Florida State University, REPL=To be replaced, ON ORDER=Total on order systems, 65=No. of on order systems delivered during 7/1/65 - 12/31/65, 66=No. of on order systems to be delivered during calendar year 1966, etc.)

The average number of hours for research and instruction usage per month for FY 65 is also given in Table 7 for each make and model of computer that was installed. (As a guideline, 130-140 hours usage per shift (176 hours) per month is considered good for batched-processing systems, which most of these are.)

*Includes terminals from off-campus computers.

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT

Table 7. (from page IV-34-37) CONTRACT NSF C465

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219 V-34-37

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	400	225	120	46	172	95	19	3	10	6			
IBM 1401	109	81	16	9	133	41	77	1	18	53	3		
IBM 7040	36	27	1	8	210	17	6	6					
CDC LGP 30	24	1	22	1	111	4							
IBM 7094	21	9	3	8	381	11	2		2				
IBM 1620II	21	20		1	199	14							
IBM 1410	20	17		3	345	12							
BUR 205	19	1	18		107	6							
IBM 1440	12	7	5		102		15		15				
IBM 1460	9	9			332	5	2		1	1			
CDC 1604	9	1	7	1	319	1							
IBM 1710	7	5	1		251								
CDC 160A	7	2	4	1	240	1	1			1			
BUR 220	7	1	6		163	1							
IBM 709	6		5	1	302	3							
MCD	6												
PDP 7	5	1	4		435		2		2				
IBM 7074	5	3	1	1	316	4							
IBM 7044	5	4		1	276	1	3	1	1	1			
IBM 7072	4	1	2	1	418	2							
SDS 910	4	1	3		352		1		1				
CDC 3600	4		3	1	284								
CDC G-15	4		3	1	235	2	4		4				
CDC RP4000	4		4		231								
PDP 5	4		3	1	168								
BUR 5500	4		4		149	1	1			1			
UNI 1004	4	3	1		69	1	1	1					
IBM 7090	3	1	1	1	423	2							
CDC 160	3		3		412								
SDS 930	3	1	1	1	400		3		3				
IBM 360/30	3	3			398		39	1	16	12	4	5	
NCR 304	3		3		300								
GEC 225	3		2	1	258								
CDC 8090	3	2	1		176		1		1				
UNI 1107	3	1	2		175								
PDP 4	3		2	1	152								6

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
CDC G-20	3		2		130	1	1		1				
CDC 3400	3	3			101								
MIT	3				1		1		1				
ALW III	3		3										
WDP	3												
UNI 418	2			2	500								
UNI SS80	2		1		488		1			1			
PDP 1	2		1	1	310								
**PDP LINC	2		2		250								
PDP 6	2		2		250								
**PDP 8	2		2		219		10	2	7				1
IBM 7070	2		1	1	175	1							
UNI 1105	2	1	1		168	2							
CDC 3200	2	2			75	2							
BUR 204	2		2		64								
ASI 6020	1			1	720	1	1			1			
CDC G-21	1		1		600								
TRW 300	1		1		500								
IBM 7080	1	1			450								
SDS 920	1	1			400								
ILL IAC II	1		1		400								
RIC E	1		1		350								
CDC 6600	1	1			325		2		2				
MIT TXU	1			1	300								
TRW 400	1		1		300								
ILL CSX I	1		1		300								
HON 800	1		1		250								
GEC 235	1	1			250	1							
CDC 3100	1	1			250		3	1	1	1			
ALW III-E	1		1		200								
IBM 650	1		1		175								
REC UMPIII	1		1		170								
CYC LUNE	1		1		164	1							
HON 400	1		1		150								
IBM 1130	1	1			120		83		37	45			
MAN IACIII	1		1		103								

Table 7 cont'd

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219

POPULATION ESTIMATES

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
MON XI	1	1			100	1							
GEC PK4000	1		1		80								
**DEC LINC	1		1		50								
PAB 250	1		1		40								
IBM 797	1		1		40								
GEC 235TER	1	1			25	1							
RCA FLACII	1		1		10								
BEK 420	1		1										
RCA 301	1	1											
CUR	1												
GEC 265	1		1			1							
CDC 924	1		1										
PHI 211	1		1										
MII 7094	1												
HON 200	1		1				8		7	1			
GEC 645							1		1				
SDS 940							1		1				
ASI 6040							1		1				
GEC 425							1		1				
SDS 9300							1	1					
CDC 8092							1		1				
** LIN C8							1			1			
IBM 360/91							1					1	
GEC DNET15							1		1				
TSH SDS940							1		1				
IBM 360/90							1			1			
IBM 360/75							4		1	3			
CDC 6400							4		2	2			
GEC DN/30							1		1				
GEC 415							1		1				
GEC 625							2		2				
IBM 704							1		1				
IBM 1800							6		3	3			
IBM 1500							3			3			
SDS 925							3	1	2				
*TUC 1/3							3		3				

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
HON 2200							1	1					
IBM 360/65							7		1	1	5		
CDC 1700							2		1	1			
CDC 3300							6	1	1	4			
IBM 360/67							20		4	7	8		
UNI 1108II							1			1			
BUR 5500TS							2		2				
GEC 215							3		3				
IBM 360/40							51	2	18	18	10	1	
RCA 70/45							3			3			
IBM 360/50							35		15	9	7	3	
BUR 101E							6						6
TSH FS1440							6						6
IBM 360/44							14		3	5	6		
HON 1200							9		5	4			
IBM 360/20							26		5	19	1		

*TUC 1/3 = one-third of the costs of the Triangle Universities Computation Center, North Carolina. The TUCC installation itself is not otherwise included in the survey.

**These are probably similar systems.

4. Degree Programs in Computer Science and Related Areas

On the basis of responses to Item I-B of the questionnaire an estimated 226 degree programs in computer science and related areas were being offered at least by fall 1966 and an additional 331 were planned for implementation during the "next three years." Programs specifically designated as Computer Science accounted for 18% (40) of the going programs, 55% (182) of the planned programs, and 40% (223) of the total number (557) of going and planned programs. Business Data Processing appeared second most frequently making up another 40% (93) of the going programs, 26% (85) of the planned programs and 32% (178) of the total number. Appendix C presents the estimated numbers by name of program, degree level, and status (i.e., going or planned). Eighteen different names were used to classify the responses. In a few instances the classification was not exact. This was particularly true of late responses received in early 1967 (i.e., too late to add new categories).

The estimates for the numbers of programs in each of Computer Science, Business Data Processing, Information Science, Computer Science Options in Mathematics, and all others are presented in Table 8 on the portion of the questionnaire which was used to collect the sample data.

Item I.

Table 8 (from page V-28)

SAMPLE SIZE 669 POP. SIZE 2219 All Institutions

B. Computer Science Instruction Programs:

(1) What degree programs did your institution offer in 1964-65, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Degrees (check appropriate ones)			
		Assoc.	Bach.	Masters	Doctorate
a. Computer Science	40	0	11	17	12
b. Business Data Processing	93	83	6	3	1
c. Information Science	18	0	2	12	4
d. Option in Mathematics	24	0	10	8	6
All Other	51	0	15	21	15

(2) What degree programs does your institution plan to offer in the next three years, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Assoc.	Bach.	Masters	Doctorate
a. Computer Science	183	17	81	59	26
b. Business Data Processing	85	74	9	1	1
c. Information Science	16	0	2	5	9
d. Option in Mathematics	13	1	7	4	1
All Other	34	13	8	7	6

(3) Estimate and project the number of students being trained to use computers at your institution.

	Graduate		Undergraduate	
	1964-5	1968-9	1964-5	1968-9
a. Computer Science majors	1,314	5,318	4,338	18,807
b. Other majors (with at least some skill in using one programming language)	28,800	80,793	119,092	350,168

5. Numbers of "Computer Science"[1] Majors and Numbers of Students Being Trained to Use Computers

Nearly 120,000 undergraduates and 29,000 graduate students received some computer training during 1964-65. In addition approximately 4,000 undergraduates and 1,300 graduate majors in "computer science" were estimated to have been enrolled in 1964-65.

The numbers of students to be trained "in at least one programming language" for 1968-69 is estimated to increase nearly three-fold or approximately 81,000 graduates and 350,000 undergraduates.

For the year 1968-69 there is to be an estimated 19,000 undergraduate majors and over 5,000 graduate majors. This is an estimated four-fold increase and is dependent to a large extent upon the schools being able to bring the planned programs into being as scheduled.

These figures are also presented in Table 8 on the part of the questionnaire used to collect the sample data.

Appendix D relates the number of students being given computer instruction to the total enrollment of the three broad types of institutions given in (2), namely, universities (strata 114 and 214 only) other four-year institutions, and two-year institutions. The institutions are also grouped by type of control, public and private. The computations given in Appendix D indicate that there are computers available in institutions enrolling 60% of all students in higher education.

6. Distribution of usage as percentage of cost

Because of the great diversity of missions of the institutions in the population it is difficult to get meaningful estimates on percentage of use by category over all institutions. Better estimates can be obtained for individual strata and certain groups of strata. The responses to Item VII of the questionnaire were grouped into classes as follows for each cell of the questionnaire over all institutions in each stratum. The classes used were:

Class Limits

76-100
51-75
26-50
01-25
No response -00

The instrument and its instructions did not request that a clear distinction be made among a no response, not applicable and zero percentage. Therefore, the median percentage based upon the estimated population frequencies, excluding the no response -00 category, appears to be the best estimate for the percentage of usage for each cell. These estimates are presented in Table 9.

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[1] The term computer science in quotes is used to cover all majors in any of the areas reported including options in math, electrical engineering, etc.

Table 9

All Institutions

Item VII. Utilization of Digital Computers for Research, Development and Education

(Median percentage estimated for all Institutions applicable excluding zeros and no-responses)

Purpose	Distribution as percentage of cost of total utilization (Total annual cost = 100%)						
	Engineering (1)	Physical Sciences (2)	Life Sciences (3)	Social Sciences (4)	Computer Sciences (5)	Other (6)	Total (7)
(1) R&D and Graduate Instruction ( ) Est. No. Institutions	17[a] (150)	18 (228)	15 (157)	12 (192)	14 (112)	14 (154)	51 (299)
(2) Undergraduate Instruction	19 (234)	18 (280)	13 (132)	14 (176)	38 (266)	18 (231)	77 (514)
(3) Computer Center (e.g., R&D in Software not included elsewhere)							13 (199)
(4) Library Sciences, Information Retrieval Systems (e.g., R&D in IRS not included elsewhere)							14 (68)
(5) Extra-Institutional							14 (124)
(6) Total (1) through (5)	29 (247)	25 (336)	15 (216)	14 (253)	13 (288)	19 (297)	100 (549)
(7) Total (6) projected to 1968-9	23 (282)	22 (414)	14 (318)	14 (332)	26 (393)	19 (353)	86 (607)[b]

[a]Interpretation: An estimated 150 institutions use the computer for R&D and Graduate Instruction in Engineering. At half of these institutions the cost of this usage amounts t. less than 17% of the cost of the total usage.

[b]In B-3 an estimate of 700 institutions with computers was given, therefore, some did not make projections and still more did not respond or had no usage to report for FY65.

C. DISCUSSION: DOCTORAL GRANTING INSTITUTIONS

1. Expenditures

Current and capital expenditures at the doctoral granting institutions accounted for 80% or 82 million of the 103 million total for FY65 and expected to be 78% or 216 million of the 276 million total estimated for FY69. Over 32 million, or again 80%, of the 41 million manufacturers' contributions for FY65 went to these institutions.

Approximately 25 million was spent on salaries for 3900 staff members in FY65 with an expected expenditure of 55 million for 7300 personnel during FY69.

44 million was used to pay for computer rentals, purchases, and maintenance in FY65 and this is expected to reach 121 million during FY69. To these figures we should add approximately 32 million in the form of manufacturer's contributions which bring the total costs of computers to 76 million for FY65 and 153 million for FY69.

Total capital expenditures for equipment (including computer purchases), building and furniture are expected to go from 17 million in FY65 to 50 million in FY69.

The above estimates and others are given in tables 10, 11, and 12.

2. Sources of Funds

One half of the 82 million expended by the doctoral granting institutions during FY65 for computer services to research and instruction came from Federal agencies and 47%, or 101 million, is expected from federal sources during FY69. The institutions themselves provided 35 million in FY65 and estimate that they can provide 95 million for FY69.

Of the 41 million provided by the federal government during FY65, over 22 million was "primarily for computer activities" and 56 million is expected during FY69 for the same purposes. The remaining 18 million from Federal sources in FY65 came from computer services to research contracts and grants. From the same sources these institutions estimate that 45 million will be forthcoming for FY69.

12 million of the estimated funds earmarked "primarily for computer activities" by Federal agencies was spent for rental or purchases of equipment or buildings, under 7 million for their operating costs, 3 million for computer time for R and D and graduate instruction, $\frac{1}{4}$ million for computer time for undergraduate instruction, and nearly $1\frac{1}{2}$ million for computer science activities. For these same items there is to be an estimated increase from two to six-fold by FY69. The highest percentage increase is expected to be for computer time for undergraduate instruction, over 600%. These estimates are presented in tables 13 and 14.

Item III.

Table 10 (from page VI-A-38)

Current Expenditures for Digital Computer Activities
by Cost Items and Number of Personnel
Doctoral Granting Institutions
SAMPLE SIZE 227 POP. SIZE 269

Cost Item	1964-5	1968-9 Projection
A. Current (1964-5) and Projected (1968-9) expenditures for digital computer activities		
1. Equipment rentals	22,632,000.00	73,634,000.00
2. Rental or costs for building space to house computer activities	1,414,000.00	3,053,000.00
3. Maintenance costs not already included in (1) or (2)	2,136,000.00	3,793,000.00
4. Salaries and wages of personnel .....Total	24,603,000.00	54,719,000.00
a. Systems and utility programmers	8,577,000.00	21,749,000.00
b. Administrative and other professional	7,734,000.00	16,971,000.00
c. All other (e.g., keypunch and other operators, clerical, technicians)	8,286,000.00	15,995,000.00
5. Costs for purchase of off-campus computing service	561,000.00	560,000.00
6. Other direct costs (including materials and supplies)	6,166,000.00	12,417,000.00
7. Indirect costs (general institutional administrative and general expense allocation)	7,563,000.00	17,853,000.00
Total	65,089,000.00	166,044,000.00

B. Please indicate full time equivalent number employed for items 4 (a), 4 (b), and 4 (c) above:	Number of Personnel	
	1964-5	1968-9 Projection
1. Systems and utility programmers	1,170	2,533
2. Administrative and other professional	781	1,466
3. All other (keypunch and other operators, clerical, technicians, etc.)	1,941	3,292
Total	3,898	7,296

Item IV.

Table 11 (from page VI-A-38)

Capital Expenditures for Digital Computer Activities
Doctoral Granting Institutions
SAMPLE SIZE 227 POP. SIZE 269

Year	Item			Total
	Computers and Peripheral Equipment	Buildings to House Computer Activities	Furniture, Fixtures, and other Equipment	
1964-5	12,752 ,000.00	3,147 ,000.00	769 ,000.00	16,673,000.00
1965-6 projection	14,893 ,000.00	8,016 ,000.00	862 ,000.00	23,776,000.00
1966-7 projection	22,845 ,000.00	13,194 ,000.00	1,464 ,000.00	37,507,000.00
1967-8 projection	15,943 ,000.00	25,827 ,000.00	2,048 ,000.00	43,823,000.00
1968-9 projection	28,797 ,000.00	17,789 ,000.00	3,027 ,000.00	49,616,000.00

Table 12 (from page VI-B-37)

Item VI. Additional Institutional and Manufacturers' Contributions
Doctoral Granting Institutions
SAMPLE SIZE 227 POP. SIZE 269

A. Adequacy of charges as a means of support for sponsored research and development projects

1. Did money received from sponsored R&D projects for computer usage equal the amount actually used in the case of

   a. R&D projects sponsored by the Federal Government — ____ Yes 102 No

   b. R&D projects sponsored by non-Federal agencies (excluding institution's own funds) — ____ Yes 71 No

2. If "no" in 1 (a) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by Federal agencies. — 6,050,000.00

3. If "no" to 1 (b) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by non-Federal agencies. — 2,109,000.00

B. Equipment manufacturers' contribution

1. Estimated contributions toward purchase and/or rental of equipment made available from manufacturers in the form of discounts, allowances, etc., 1964-5.

Current Expenditures	22,313,000.00
Capital Expenditures	9,899,000.00
Total	32,214,000.00

Table 13 (from page VI-A-38)

Item II. Current and Capital Expenditures for Digital Computer Activities,* by Source of Funds for Reporting Period
Doctoral Granting Institutions
SAMPLE SIZE 227 POP. SIZE 269

Source of Funds	Current expenditures (1)	Capital** expenditures (2)	Total Col. (1)+(2) = (3)	Projected 1968-9 Total
A. Federal Government:				
1. Contracts and grants primarily for computer activities ***	16,420,000.00	6,025,000.00	22,446,000.00	56,306,000.00
2. Other contracts and grants	15,271,000.00	3,068,000.00	18,342,000.00	44,912,000.00
B. Institution's own funds	27,529,000.00	7,733,000.00	35,267,000.00	95,177,000.00
C. Other sources (gifts, contracts, and grants from industry, State and local governments, etc.)	5,833,000.00	3,900,000.00	9,734,000.00	19,209,000.00
D. Totals	65,062,000.00	20,732,000.00	85,796,000.00	215,613,000.00

* Activities include everything except the use of the computers for the institution's own administrative affairs.

** Includes purchases of computer and peripheral equipment.

*** Total in column (3) should equal the total of all entries in Item V-A.

Item V.

Table 14 (from page VI-B-37)
Expenditures of Funds Intended by the Funding Agency to be Used Primarily for the Support of Computer Equipment, Buildings, and Activities

SAMPLE SIZE 227 POP. SIZE 269

Sources of Funds	Digital Computer Equipment or Buildings		Computer Time for		Computer Science Activities*
	Rental or Purchase Cost (1)	Operating Cost (2)	R&D & Grad. Instruction (3)	Undergrad. Instruction (4)	(5)
2. Sums of all other Federal Grants and Contracts (individual rates of less than $50,000 per year)	,000.00	,000.00	,000.00	,000.00	,000.00
**Total Federal	12,056,000.00	6,694,000.00	3,012,000.00	251,000.00	1,405,000.00
B. Non-Federal Grants and Contracts: 1. Annual Rates Greater than $50,000 (identify)					
a.	,000.00	,000.00	,000.00	,000.00	,000.00
b.	,000.00	,000.00	,000.00	,000.00	,000.00
c.	,000.00	,000.00	,000.00	,000.00	,000.00
d.	,000.00	,000.00	,000.00	,000.00	,000.00
2. Other non-Federal Grants and Contracts	,000.00	,000.00	,000.00	,000.00	,000.00
Total Non-Federal	2,457,000.00	896,000.00	1,070,000.00	223,000.00	694,000.00
C. Total of A and B, 1964-5	14,515,000.00	7,591,000.00	4,085,000.00	474,000.00	2,102,000.00
D. Total Projected, 1968-9	34,578,000.00	19,535,000.00	13,758,000.00	3,084,000.00	6,311,000.00

*Computer Science Activities: Includes institutes, academic programs support, fellowships, etc.

**Includes Federal Grants and Contracts in excess of $50,000 per year from previous page of questionnaire.

3. Number of Institutions with Computers and Number of Computers in the Institutions

Table 15 gives the estimates for the number of institutions with computers, number of computers installed as of June 30, 1965, the number of computers on order as of around December, 1966 and the number of installed computers to be replaced by the on order systems for each of the four classes of institutions to be discussed. The same estimates are given in Appendix B, Table 1, by individual strata.

If the reader is interested in seeing the estimated frequencies for the individual makes and models of computers he is referred to section IV.

4. Degree Programs in Computer Sciences and Related Areas by Type of Program

The doctoral granting institutions offered 34 of the 40 going degree programs in computer science and accounted for 122 of the 165 planned programs at and above the bachelors level. 15 of the 18 going programs and 15 of the 16 planned programs in Information Science were accounted for by this group of institutions. Only 9 of the 93 going curricula and 10 of the 85 planned programs for Business Data Processing are estimated to be from this group. Nearly all of the Computer Science options in Mathematics (32 out of 37) and Electrical Engineering (22 out of 23) appeared in the estimates for the group of doctoral granting institutions. Table 16 presents this data in the questionnaire format.

5. Numbers of "Computer Science Majors" and Students Being Trained to Use Computers

From Table 16 and Table 8 we find that the doctoral granting institutions provided some computer education to 83 of the 120 thousand (70%) undergraduates and 25 of the 29 thousand (87%) graduate students in FY65 who received some computer education. For FY69 the corresponding figures are estimated to be 256 out of 350 thousand (73%) and 69 out of 81 thousand (86%). For majors only 800 of the 4300 (19%) undergraduates, and 1200 of the 1300 graduate students (92%) were enrolled in the doctoral granting institutions during FY65. For FY69 the estimates for "Computer Science" majors enrolled are 6000 of the 19000 (32%) undergraduates and 4700 of the 5300 graduates (87%).

6. Median Percentages of Usage by Area and Level

Table 17 contains the estimates of the median percentage of usage by those institutions for which the category is applicable. The estimate of the number of institutions which have each type of use is also given in parentheses. Several institutions did not report on this item because their usage records did not conform. By using the medians calculated here we are assuming that the distribution in each cell for those not responding is no different than that of those who did. Comparisons from group to group, cell by cell have a straightforward interpretation. The reader should be cautious in his interpretation of cell against cell within a group of institutions.

Table 15
Number of Institutions with Computers and Number of Computers Installed, On Order, and to be Replaced

Type of Institution by Highest Degree Offered	No. of Institutions in Population	Estimated No. of Institutions With Computers	Estimated No. Computers Installed June 30, 1965	Estimated No. Computers On Order (circa Dec. '66)	Estimated No. Computers to be Replaced by on Order Computers
Doctorate (Group XX4)	269	215	517	230	165
Masters and/or Second Professional Degrees (Group XX3)	466	217	176	125	49
Bachelors and/or First Professional Degrees (Group XX2)	794	124	78	53	0
Two to Four Years Beyond 12th Grade (Group XX1)	688	150	85	110	22
Other (Group XX5)	2	1	2	0	0
Total (Group XXX)	2219	707	858	518	236

Item I.

Table 16 (from page V-27)
Doctoral Granting Institutions
SAMPLE SIZE 227 POP. SIZE 269

B. Computer Science Instruction Programs:

(1) What degree programs did your institution offer in 1964-65, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Degrees (check appropriate ones)			
		Assoc.	Bach.	Masters	Doctorate
a. Computer Science	34	0	8	14	12
b. Information Science	15	0	2	9	4
c. Business Data Processing	9	3	2	3	1
d. Options in Mathematics	20	0	6	8	6
All Other	47	0	11	21	15

(2) What degree programs does your institution plan to offer in the next three years, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Assoc.	Bach.	Masters	Doctorate
a. Computer Sciences	122	4	44	48	26
b. Information Science	15	0	1	5	9
c. Business Data Processing	10	4	4	1	1
d. Options in Mathematics	12	1	6	4	1
All Other	18	2	4	6	6

(3) Estimate and project the number of students being trained to use computers at your institution.

	Graduate		Undergraduate	
	1964-5	1968-9	1964-5	1968-9
a. Computer Science majors	1,213	4,651	799	5,993
b. Other majors (with at least some skill in using one programming language)	25,224	69,432	83,019	256,397

Table 17
Doctoral Granting Institutions
SAMPLE SIZE 227 POP. SIZE 269

Item VII. Utilization of Digital Computers for Research, Development and Education

Median Percentage Estimated for Doctoral Granting Institutions Applicable, Excluding Zeros and No-responses

Purpose	Distribution as percentage of cost of total utilization (Total annual cost = 100%)						
	Engineering (1)	Physical Sciences (2)	Life Sciences (3)	Social Sciences (4)	Computer Sciences (5)	Other (6)	Total (7)
(1) R&D and Graduate Instruction ( ) Estimated No. of Institutions	16[a] (124)	19 (154)	15 (135)	13 (138)	13 (69)	14 (106)	64 (185)
(2) Undergraduate Instruction	15 (118)	13 (117)	13 (61)	13 (76)	14 (78)	15 (68)	23 (170)
(3) Computer Center (e.g., R&D in Software not included elsewhere)	[redacted]						14 (113)
(4) Library Sciences, Information Retrieval Systems (e.g., R&D in IRS not included elsewhere)							13 (41)
(5) Extra-Institutional							13 (83)
(6) Total (1) through (5)	29 (130)	24 (160)	15 (143)	14 (140)	15 (96)	15 (120)	100 (192)
(7) Total (6) projected to 1968-9	23 (133)	22 (164)	15 (159)	14 (148)	15 (143)	14 (124)	86 (191)

[a]See footnote on Table 9 for interpretation

D. DISCUSSION: INSTITUTIONS OFFERING MASTERS AND/OR SECOND PROFESSIONAL DEGREES

1. Expenditures

There are 466 institutions which offer the master's degree or Second Professional degree as their highest level of offering (Group XX3). These schools spent an estimated 9 million for research and instructional uses of computers in FY65 and expect to have 38 million available for FY69. The ratio of capital to current expenditures for FY65 was 1 to 5 but is expected to increase to 1 to 2 for FY69.

An estimated $2\frac{1}{2}$ million was paid to 500 staff members of the computer facilities in FY65 and nearly $8\frac{1}{2}$ million is expected to be required for 1300 employees in FY69. The main reason for the apparent unbalance between the increases in funds and personnel is due to the fact that a four-fold increase is expected in the systems and utility programmer category while only a $2\frac{1}{2}$ times increase is anticipated in the other categories. These estimates and others are given in Tables 18, 19 and 20.

2. Sources of Funds

640 thousand of the 9 million expended by the masters' institutions for research and instructional use of computers come from Federal sources in FY65. Five times this amount, or 3.3 million, is expected for FY69. The institutions themselves paid 7 of the 9 million in FY65 and anticipate bearing over 30 million of the estimated 38 million needed for FY69. In addition to the 9 million total expended in FY65 the manufacturers' accounted for an estimated 3.5 million in rental and purchase discounts and other assistance.

Major increases for FY69 over FY65 in outside support is expected to come for rental or purchase of equipment and buildings (over 2 million) and for computer science activities (over 1 million). These and other estimates are obtained from Tables 21 and 22.

3. Number of Institutions with Computers and Number of Computers in Institutions

An estimated 217 of the 466 institutions offering the master's or second professional degree as their highest offering had at least one computer installed or on order as of the fall of 1966. For these institutions an estimated 176 computers were installed as of June 30, 1965 and 125 were on order replacing 49 of the installed systems. (see Table 15)

4. Degree Programs in Computer Science and Related Areas

Table 23 shows the estimates of the numbers of degree programs in Computer Science going and planned in the masters' institutions. An additional 71 programs are planned and 16 were going in FY65. Over two-thirds of the planned programs are in Computer Science with 37 at the bachelor's level and 11 at the master's.

Item III.

Table 18 (from page VI-A-37)

Current Expenditures for Digital Computer Activities
by Cost Items and Number of Personnel
Institutions Offering Masters and/or Second Professional Degrees
SAMPLE SIZE 158 POP. SIZE 466

Cost Item	1964-5	1968-9 Projection
A. Current (1964-5) and Projected (1968-9) expenditures for digital computer activities		
1. Equipment rentals	3,094,000.00	10,433,000.00
2. Rental or costs for building space to house computer activities	47,000.00	1,343,000.00
3. Maintenance costs not already included in (1) or (2)	124,000.00	254,000.00
4. Salaries and wages of personnel .....Total	2,652,000.00	8,374,000.00
a. Systems and utility programmers	574,000.00	2,819,000.00
b. Administrative and other professional	1,059,000.00	2,933,000.00
c. All other (e.g., keypunch and other operators, clerical, technicians)	1,012,000.00	2,615,000.00
5. Costs for purchase of off-campus computing service	60,000.00	117,000.00
6. Other direct costs (including materials and supplies)	393,000.00	1,120,000.00
7. Indirect costs (general institutional administrative and general expense allocation)	1,185,000.00	3,847,000.00
Total	7,573,000.00	25,507,000.00

B. Please indicate full time equivalent number employed for items 4 (a), 4 (b), and 4 (c) above:	Number of Personnel	
	1964-5	1968-9 Projection
1. Systems and utility programmers	93	358
2. Administrative and other professional	127	302
3. All other (keypunch and other operators, clerical, technicians, etc.)	282	646
Total	508	1,313

Item IV.

Table 19 (from page VI-A-37)
Capital Expenditures for Digital Computer Activities
Institutions Offering the Masters and/or Second Professional Degrees
SAMPLE SIZE 158 POP. SIZE 466

Year	Item			Total
	Computers and Peripheral Equipment	Buildings to House Computer Activities	Furniture, Fixtures, and other Equipment	
1964-5	806,000.00	605,000.00	136,000.00	1,548,000.00
1965-6 projection	745,000.00	126,000.00	132,000.00	1,006,000.00
1966-7 projection	2,237,000.00	1,445,000.00	346,000.00	4,032,000.00
1967-8 projection	1,604,000.00	481,000.00	265,000.00	2,354,000.00
1968-9 projection	8,432,000.00	3,501,000.00	469,000.00	12,407,000.00

Table 20 (from page VI-B-36)

Item VI. Additional Institutional and Manufacturers' Contributions
Institutions Offering Masters and/or Second Professional Degrees
SAMPLE SIZE 158 POP. SIZE 466

A. Adequacy of charges as a means of support for sponsored research and development projects

1. Did money received from sponsored R&D projects for computer usage equal the amount actually used in the case of

   a. R&D projects sponsored by the Federal Government — ____ Yes 19 No

   b. R&D projects sponsored by non-Federal agencies (excluding institution's own funds) — ____ Yes 17 No

2. If "no" in 1 (a) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by Federal agencies. — 107,000.00

3. If "no" to 1 (b) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by non-Federal agencies. — 26,000.00

B. Equipment manufacturers' contribution

1. Estimated contributions toward purchase and/or rental of equipment made available from manufacturers in the form of discounts, allowances, etc., 1964-5.

Current Expenditures	1,888,000.00
Capital Expenditures	1,637,000.00
Total	3,527,000.00

Table 21 (from page VI-A-37)

Item II. Current and Capital Expenditures for Digital Computer Activities,* by Source of Funds for Reporting Period
Institutions Offering Masters and/or Second Professional Degrees
SAMPLE SIZE 158 POP. SIZE 466

Source of Funds	Current expenditures (1)	Capital** expenditures (2)	Total Col. (1)+(2) = (3)	Projected 1968-9 Total
A. Federal Government:				
1. Contracts and grants primarily for computer activities ***	357,000.00	282,000.00	640,000.00	3,321,000.00
2. Other contracts and grants	122,000.00	---,000.00	122,000.00	986,000.00
B. Institution's own funds	6,486,000.00	632,000.00	7,119,000.00	30,331,000.00
C. Other sources (gifts, contracts, and grants from industry, State and local governments, etc.)	659,000.00	512,000.00	1,171,000.00	3,509,000.00
D. Totals	7,626,000.00	1,428,000.00	9,059,000.00	38,154,000.00

* Activities includes everything except the use of the computers for the institution's own administrative affairs.

** Includes purchases of computer and peripheral equipment.

*** Total in column (3) should equal the total of all entries in Item V-A.

Item V.

Table 22 (from page VI-B-36)

Expenditures of Funds Intended by the Funding Agency to be Used Primarily for the Support of Computer Equipment, Buildings, and Activities
Institutions Offering Masters and/or Second Professional Degrees
SAMPLE SIZE 158 POP. SIZE 466

Sources of Funds	Digital Computer Equipment or Buildings		Computer Time for		Computer Science Activities* (5)
	Rental or Purchase Cost (1)	Operating Cost (2)	R&D & Grad. Instruction (3)	Undergrad. Instruction (4)	
2. Sums of all other Federal Grants and Contracts (individual rates of less than $50,000 per year)	,000.00	,000.00	,000.00	,000.00	,000.00
** Total Federal	336,000.00	56,000.00	158,000.00	44,000.00	42,000.00
B. Non-Federal Grants and Contracts: 1. Annual Rates Greater than $50,000 (identify)					
a.	,000.00	,000.00	,000.00	,000.00	,000.00
b.	,000.00	,000.00	,000.00	,000.00	,000.00
c.	,000.00	,000.00	,000.00	,000.00	,000.00
d.	,000.00	,000.00	,000.00	,000.00	,000.00
2. Other non-Federal Grants and Contracts	,000.00	,000.00	,000.00	,000.00	,000.00
Total Non-Federal	85,000.00	38,000.00	3,000.00	---	3,000.00
C. Total of A and B, 1964-5	421,000.00	94,000.00	161,000.00	44,000.00	45,000.00
D. Total Projected, 1968-9	2,823,000.00	218,000.00	515,000.00	163,000.00	1,216,000.00

*Computer Science Activities: Includes institutes, academic programs support, fellowships, etc.
**Includes Federal Grants and Contracts in excess of $50,000 per year from previous page of questionnaire.

Table 23 (from page V-26)

Item I.

Institutions offering Master's Degree and/or second Professional Degree

Sample Size 158, Population size 466

B. Computer Science Instruction Programs:

(1) What degree programs did your institution offer in 1964-65, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Degrees (check appropriate ones)			
		Assoc.	Bach.	Masters	Doctorate
a. Computer Science	6	0	3	3	
b. Information Science	3	0	0	3	
c. Business Data Processing	3	3	0	0	
d. Options in Mathematics	0	0	0	0	
All Other	4	0	4	0	

(2) What degree programs does your institution plan to offer in the next three years, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Assoc.	Bach.	Masters	Doctorate
a. Computer Science	51	3	37	11	
b. Information Science	1	0	1	0	
c. Business Data Processing	14	9	5	0	
d. Options in Mathematics	1	0	1	0	
All Other	4	0	3	1	

(3) Estimate and project the number of students being trained to use computers at your institution.

	Graduate		Undergraduate	
	1964-5	1968-9	1964-5	1968-9
a. Computer Science majors	23	566	511	3,160
b. Other majors (with at least some skill in using one programming language)	2,294	8,739	23,552	63,916

5. Number of "Computer Science" Majors and Numbers of Students Being Trained to Use Computers

The number of graduate "Computer Science" majors is expected to climb from 23 in FY 65 to 566 in FY 69, and the number of undergraduate majors is to go from 511 to 3160 during the same period. Nearly 2300 other graduate students learned to program in at least one programming language during FY 65 and an estimated 8700 will do so in FY 69. The corresponding figures for undergraduates are approximately 24,000 and 64,000. (see table 23)

6. Distributions of Usage as Percentage of Costs

Estimates in Table 24 show that undergraduate instruction had a dominant role in the usage of computers at institutions which offer the master's degree as their highest offering with a median of 76%. The corresponding figure for doctoral granting institutions was 23% (see Table 17). The situation was reversed, as would be expected, for R and D and graduate instruction with the masters' institutions having a median usage of 27% while the doctoral institutions had a median of 64%. The apparent decrease in emphasis on usage for Computer Science from a median of 78% in FY 65 to 37% in FY 69 can be explained away by the fact that the additional 53 institutions do not have, nor plan to have, going degree programs in computer sciences by FY 69.

Table 24

Item VII. Utilization of Digital Computers for Research, Development and Education
Median Percentage Estimated for Applicable Institutions Offering Master's and/or Second Professional Degree, Excluding Zeros and No-responses SAMPLE SIZE 158 POP. SIZE 466

Purpose	Distribution as percentage of cost of total utilization (Total annual cost = 100%)						
	Engineering (1)	Physical Sciences (2)	Life Sciences (3)	Social Sciences (4)	Computer Sciences (5)	Other (6)	Total (7)
(1) R&D and Graduate Instruction	14[a]	15	14	13	17	14	27
( ) Estimated Number of Institutions	(25)	(66)	(16)	(48)	(40)	(36)	(101)
(2) Undergraduate Instruction	25 (45)	20 (102)	13 (45)	15 (71)	49 (69)	17 (74)	76 (155)
(3) Computer Center (e.g., R&D in Software not included elsewhere)	[redacted]						13 (46)
(4) Library Sciences, Information Retrieval Systems (e.g., R&D in IRS not included elsewhere)							15 (21)
(5) Extra-Institutional							16 (41)
(6) Total (1) through (5)	35 (46)	22 (104)	14 (47)	16 (84)	78 (63)	20 (82)	100 (161)
(7) Total (6) projected to 1968-9	22 (57)	23 (141)	13 (103)	15 (119)	37 (116)	18 (108)	86 (188)

[a]See footnote of Table 9 for interpretation

E. DISCUSSION: INSTITUTIONS OFFERING BACHELORS AND/OR FIRST PROFESSIONAL DEGREES

1. Expenditures

The 794 Institutions offering Bachelors or first professional degrees as their highest offering accounted for an estimated 2 million ($2\frac{1}{2}\%$) of the total 79 million current expenditures for FY65. For the same purposes in FY69 these same institutions are expecting to spend an estimated 5 million, or again $2\frac{1}{2}\%$ of the total (see table 25). Capital expenditures are estimated to go from $2\frac{1}{2}$ million in FY65 to nearly 3 million in FY69. For some reason, which is probably associated with manufacturers' discount policies and pending orders for third generation equipment, these institutions dropped their capital expenditures to around $\frac{1}{2}$ million for FY66 and FY67 but they are estimated to climb again to over 2 million for FY68 (see table 26).

The bachelors' degree institutions used about $2\frac{1}{2}$ million of their $4\frac{1}{2}$ million total expenditures for hardware in FY65. In addition the manufacturers' contributions totaled 3 1/3 million (see table 27). This is the only group for which the manufacturers contributed over 50% of the total hardware costs. For FY69 the total hardware costs are estimated to be nearly 5 million or almost double that of FY65. Personnel is estimated to go from 163 to 391 with salaries and wages to go from less than 1 million in FY65 to nearly 2 million in FY69.

2. Source of Funds

The Federal agencies contributed less than 10% of the total expenditures for FY65 but the institutions are expecting nearly $1\frac{1}{2}$ million or 18% from this source for FY69. The institutions provided about 78% ($3\frac{1}{2}$ million) of the total $4\frac{1}{2}$ million expenditures during FY65 and are estimated to provide 73% (nearly 6 million) of the 8 million total for FY69. Only a slight increase is expected to come from other sources (see table 28).

3. Number of Institutions With Computers and Number of Computers in the Institutions.

124 of the 794 institutions had an estimated 78 computers installed as of the end of FY65 and an additional 53 on order by the fall of 1966 with none to be replaced (see table 15). Further details by strata are given in Appendix B. An estimated 47 of the computers were purchased while only 20 were leased. This is the only group (of the four discussed here) which indicates a strong preference for purchase over lease.

4. Degree Programs in Computer Science and Related Areas

The bachelors' degree institutions had an estimated 16 of the 226 going degree programs in FY65 with only an additional 5 planned (table 30). 12 of the going programs were in data processing at the associate degree level and 4 of the planned programs are estimated to be in computer science also at the associate degree level.

5. Number of "Computer Science" Majors and Number of Students Being Trained to Use Computers.

The bachelors' degree institutions had 60 undergraduate "computer science" majors during FY65 and expect to have 200 for FY69. An additional 5000

Item III.

Table 25 (from page VI-A-36)
Current Expenditures for Digital Computer Activities
Institutions Offering Bachelors and/or First Professional Degrees

SAMPLE SIZE 142 POP. SIZE 794

Cost Item	1964-5	1968-9 Projection
A. Current (1964-5) and Projected (1968-9) expenditures for digital computer activities		
1. Equipment rentals	595,000.00	1,933,000.00
2. Rental or costs for building space to house computer activities	73,000.00	20,000.00
3. Maintenance costs not already included in (1) or (2)	56,000.00	139,000.00
4. Salaries and wages of personnel .....Total	839,000.00	1,944,000.00
a. Systems and utility programmers	218,000.00	466,000.00
b. Administrative and other professional	296,000.00	772,000.00
c. All other (e.g., keypunch and other operators, clerical, technicians)	322,000.00	703,000.00
5. Costs for purchase of off-campus computing service	4,000.00	33,000.00
6. Other direct costs (including materials and supplies)	166,000.00	294,000.00
7. Indirect costs (general institutional administrative and general expense allocation)	244,000.00	731,000.00
Total	1,984,000.00	5,105,000.00

B. Please indicate full time equivalent number employed for items 4 (a), 4 (b), and 4 (c) above:	Number of Personnel	
	1964-5	1968-9 Projection
1. Systems and utility programmers	22	69
2. Administrative and other professional	41	96
3. All other (keypunch and other operators, clerical, technicians, etc.)	96	223
Total	163	391

Item IV.

Table 26 (from page VI-A-36)

Capital Expenditures for Digital Computer Activities

Institutions Offering Bachelors and/or First Professional Degrees

SAMPLE SIZE 142 POP. SIZE 794

Year	Item			Total
	Computers and Peripheral Equipment	Buildings to House Computer Activities	Furniture, Fixtures, and other Equipment	
1964-5	2,007,000.00	300,000.00	183,000.00	2,491,000.00
1965-6 projection	357,000.00	25,000.00	63,000.00	446,000.00
1966-7 projection	408,000.00	126,000.00	125,000.00	661,000.00
1967-8 projection	1,959,000.00	250,000.00	126,000.00	2,336,000.00
1968-9 projection	2,791,000.00	---,000.00	95,000.00	2,886,000.00

Table 27 (from page VI-B-35)

Item VI. Additional Institutional and Manufacturers' Contributions
Institutions Offering Bachelors and/or First Professional Degrees
SAMPLE SIZE 142 POP. SIZE 794

A. Adequacy of charges as a means of support for sponsored research and development projects

1. Did money received from sponsored R&D projects for computer usage equal the amount actually used in the case of

   a. R&D projects sponsored by the Federal Government _____ Yes _____ No

   b. R&D projects sponsored by non-Federal agencies (excluding institution's own funds) _____ Yes _____ No

2. If "no" in 1 (a) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by Federal agencies. ,000.00

3. If "no" to 1 (b) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by non-Federal agencies. ,000.00

B. Equipment manufacturers' contribution

1. Estimated contributions toward purchase and/or rental of equipment made available from manufacturers in the form of discounts, allowances, etc., 1964-5.

Current Expenditures	170,000.00
Capital Expenditures	3,132,000.00
Total	3,302,000.00

Table 28 (page VI-A-36)

Item II. Current and Capital Expenditures for Digital Computer Activities,* by Source of Funds for Reporting Period
Institutions Offering Bachelors and/or First Professional Degree
SAMPLE SIZE 142 POP. SIZE 794

Source of Funds	Current expenditures (1)	Capital** expenditures (2)	Total Col. (1)+(2) = (3)	Projected 1968-9 Total
A. Federal Government:				
1. Contracts and grants primarily for computer activities ***	,000.00	332,000.00	332,000.00	1,376,000.00
2. Other contracts and grants	59,000.00	,000.00	59,000.00	86,000.00
B. Institution's own funds	1,783,000.00	1,719,000.00	3,504,000.00	5,802,000.00
C. Other sources (gifts, contracts, and grants from industry, State and local governments, etc.)	142,000.00	438,000.00	580,000.00	727,000.00
D. Totals	1,984,000.00	2,491,000.00	4,477,000.00	7,992,000.00

* Activities includes everything except the use of the computers for the institution's own administrative affairs.

** Includes purchases of computer and peripheral equipment.

*** Total in column (3) should equal the total of all entries in Item V-A.

Table 29 (from page VI-B-35)

Expenditures of Funds Intended by the Funding Agency to be Used Primarily for the Support of Computer Equipment, Buildings, and Activities

Item V. Institutions Offering Bachelors and/or First Professional Degrees

SAMPLE SIZE 142 POP. SIZE 794

Sources of Funds	Digital Computer Equipment or Buildings		Computer Time for		Computer Science Activities* (5)
	Rental or Purchase Cost (1)	Operating Cost (2)	R&D & Grad. Instruction (3)	Undergrad. Instruction (4)	
2. Sums of all other Federal Grants and Contracts (individual rates of less than $50,000 per year)	,000.00	,000.00	,000.00	,000.00	,000.00
** Total Federal	207,000.00				
B. Non-Federal Grants and Contracts: 1. Annual Rates Greater than $50,000 (identify)					
a.	,000.00	,000.00	,000.00	,000.00	,000.00
b.	,000.00	,000.00	,000.00	,000.00	,000.00
c.	,000.00	,000.00	,000.00	,000.00	,000.00
d.	,000.00	,000.00	,000.00	,000.00	,000.00
2. Other non-Federal Grants and Contracts	,000.00	,000.00	,000.00	,000.00	,000.00
Total Non-Federal	62,000.00				
C. Total of A and B, 1964-5	270,000.00	,000.00	,000.00	,000.00	,000.00
D. Total Projected, 1968-9	1,711,000.00	10,000.00	,000.00	,000.00	,000.00

*Computer Science Activities: Includes institutes, academic programs support, fellowships, etc.

**Includes Federal Grants and Contracts in excess of $50,000 per year from previous page of questionnaire.

Table 30 (from page V-25)
Institutions Offering Bachelors and/or First Professional Degrees

Item I.

SAMPLE SIZE 142 POP. SIZE 794

B. Computer Science Instruction Programs:

(1) What degree programs did your institution offer in 1964-65, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Degrees (check appropriate ones)			
		Assoc.	Bach.	Masters	Doctorate
a. Computer Science	0	0	0		
b. Business Data Processing	12	8	4		
c. Options in Mathematics	4	0	4		
d. Options in Electrical Engineering	0	0	0		

(2) What degree programs does your institution plan to offer in the next three years, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Assoc.	Bach.	Masters	Doctorate
a. Computer Sciences	4	0	0		
b. Business Data Processing	0	0	0		
c. Options in Mathematics	0	0	0		
d. Options in Electrical Engineering	1	0	1		

(3) Estimate and project the number of students being trained to use computers at your institution.

	Graduate		Undergraduate	
	1964-5	1968-9	1964-5	1968-9
a. Computer Science majors	--	--	60	200
b. Other majors (with at least some skill in using one programming language)	282	783	5,082	13,267

students (undergraduates) received some training during FY65 and over 13,000 are expected to be given some computer education in FY69. 282 graduate students were reported to have had some computer training in FY65 and this number is expected to approach 800 for FY69. These are apparently non-degree seeking enrollees such as evening classes, special courses, etc.

6. Distribution of Usage as Percentage of Cost

As would be expected, the undergraduate instruction usage dominates the usage at the bachelors' degree institutions with a median percentage usage of 86%. The physical sciences, engineering and "computer sciences" have medians of 50, 44 and 38 percent respectively, for undergraduate instruction. If we assume that graduate instruction is minimal at these institutions then we can say that research use in the physical sciences seems to run a much higher percentage than the other areas with a median of 38% vs. 13% for the others (see Table 31).

Table 31

Item VII. Utilization of Digital Computers for Research, Development and Education

Institutions Offering Bachelors and/or First Professional Degrees

SAMPLE SIZE 142 POP. SIZE 794

Purpose	Distribution as percentage of cost of total utilization (Total annual cost = 100%)						
	Engineering (1)	Physical Sciences (2)	Life Sciences (3)	Social Sciences (4)	Computer Sciences (5)	Other (6)	Total* (7)
Median %	13[a]	38	13	13	13	13	38
(1) R&D and Graduate Instruction ( ) Estimated No. of Institutions	(1)	(7)	(6)	(6)	(1)	(6)	(7)
(2) Undergraduate Instruction	44 (32)	50 (54)	13 (26)	13 (29)	38 (31)	20 (55)	86 (90)
(3) Computer Center (e.g., R&D in Software not included elsewhere)	[redacted]						13 (22)
(4) Library Sciences, Information Retrieval Systems (e.g., R&D in IRS not included elsewhere)							-- (0)
(5) Extra-Institutional							-- (0)
*(6) Total (1) through (5)	44 (32)	63 (55)	13 (26)	13 (29)	38 (31)	20 (55)	100 (91)
*(7) Total (6) projected to 1968-9	41 (36)	50 (67)	13 (30)	13 (45)	30 (35)	23 (55)	88 (96)

[a] See footnote on Table 9 for interpretation

F. DISCUSSION: INSTITUTIONS OFFERING TWO TO FOUR YEARS BEYOND THE 12th GRADE

1. Expenditures

Approximately 20% of the 688 institutions which offer two to four years beyond high school were included in the sample. (This group is made up almost entirely of the two-year schools and will be referred to hereafter as the "two-year institutions.") Based upon the responses of the sampled institutions the entire group spent an estimated $7\frac{1}{2}$ million on computers for research and instruction in FY65. From table 38 we see that the usage was almost entirely undergraduate instruction. Expenditures for FY69 are estimated to be nearly doubled or $14\frac{1}{2}$ million (see tables 32 and 33). To these figures we should add 2 1/3 million for the manufacturers' contributions in FY65 (table 34). Over 4 1/3 million (nearly 60%) of the $7\frac{1}{2}$ million expenditures in FY65 went for computer rentals, maintenance and purchases. For FY69 these items are expected to total approximately $7\frac{1}{2}$ million.

1 3/4 million was used by the two-year institutions to pay for 283 staff members in FY65 and an estimated 4.4 million will be required in FY69 to pay for a staff of 731. Current expenditures for FY65 (3.8 million) exceeded capital expenditures only slightly (3.7 million). However, for FY69 current expenses are estimated to be 10 million vs. about $4\frac{1}{2}$ million for capital expenditures.

2. Sources of Funds

Federal funds "primarily for computer activities" amounted to an estimated $1\frac{1}{4}$ million in FY65 and other sources (primarily state matching funds under NDEA, Title VIII) accounted for $1\frac{1}{2}$ million with the remaining 4 3/4 million coming from the two-year institutions themselves. For FY69 the Federal sources are estimated to provide 1.9 million, other sources 1.7 million and the institutions themselves are estimated to be able to provide 10.7 million (table 35).

3. Number of Institutions With Computers and Numbers of Computers in the Institutions

An estimated 150 of the 688 two-year institutions had a computer installed or on order by late 1966. These 150 institutions had 85 computers installed, 110 on order, and 22 of the installed machines were to be replaced by on order equipment (see table 15). Of the 85 installed machines 38 are estimated to be wholly leased and 41 complete systems were purchased.

4. Degree Programs in Computer Science and Related Areas

69 of the estimated 226 going degree programs during FY65 were associate degree programs in business data processing at the two-year institutions. An estimated 61 additional associate degree programs in business data processing were planned; also 6 in computer science and 11 in scientific data processing were planned at the same level (see Table 37).

Item III.

Table 32 (from page VI-A-35)
Current Expenditures for Digital Computer Activities
by Cost Items and Number of Personnel
Institutions Offering Two to Four Years Beyond 12th Grade
SAMPLE SIZE 141 POP. SIZE 688

Cost Item	1964-5	1968-9 Projection
A. Current (1964-5) and Projected (1968-9) expenditures for digital computer activities		
1. Equipment rentals	943,000.00	2,559,000.00
2. Rental or costs for building space to house computer activities	71,000.00	671,000.00
3. Maintenance costs not already included in (1) or (2)	133,000.00	334,000.00
4. Salaries and wages of personnel.....Total	1,785,000.00	4,403,000.00
a. Systems and utility programmers	292,000.00	839,000.00
b. Administrative and other professional	1,149,000.00	2,673,000.00
c. All other (e.g., keypunch and other operators, clerical, technicians)	343,000.00	888,000.00
5. Costs for purchase of off-campus computing service	---,000.00	51,000.00
6. Other direct costs (including materials and supplies)	260,000.00	606,000.00
7. Indirect costs (general institutional administrative and general expense allocation)	613,000.00	1,423,000.00
Total	3,810,000.00	10,051,000.00

B. Please indicate full time equivalent number employed for items 4 (a), 4 (b), and 4 (c) above:	Number of Personnel	
	1964-5	1968-9 Projection
1. Systems and utility programmers	50	123
2. Administrative and other professional	130	298
3. All other (keypunch and other operators, clerical, technicians, etc.)	101	309
Total	283	731

Item IV.

Table 33 (from page VI-A-35)

Capital Expenditures for Digital Computer Activities
Institutions Offering Two to Four Years Beyond 12th Grade
SAMPLE SIZE 141 POP. SIZE 688

Year	Item			Total
	Computers and Peripheral Equipment	Buildings to House Computer Activities	Furniture, Fixtures, and other Equipment	
1964-5	3,282,000.00	235,000.00	264,000.00	3,782,000.00
1965-6 projection	1,454,000.00	71,000.00	248,000.00	1,776,000.00
1966-7 projection	2,310,000.00	156,000.00	197,000.00	2,664,000.00
1967-8 projection	1,673,000.00	45,000.00	191,000.00	1,909.000.00
1968-9 projection	3,876,000.00	316,000.00	366,000.00	4,560.000.00

Table 34 (from page VI-B-34)

Item VI. Additional Institutional and Manufacturers' Contributions
Institutions Offering Two to Four Years Beyond 12th Grade
SAMPLE SIZE 141 POP. SIZE 688

A. Adequacy of charges as a means of support for sponsored research and development projects

1. Did money received from sponsored R&D projects for computer usage equal the amount actually used in the case of

   a. R&D projects sponsored by the Federal Government — ____ Yes 28 No

   b. R&D projects sponsored by non-Federal agencies (excluding institution's own funds) — ____ Yes 16 No

2. If "no" in 1 (a) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by Federal agencies. — 157,000.00

3. If "no" to 1 (b) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by non-Federal agencies. — ---,000.00

B. Equipment manufacturers' contribution

1. Estimated contributions toward purchase and/or rental of equipment made available from manufacturers in the form of discounts, allowances, etc., 1964-5.

Current Expenditures	610,000.00
Capital Expenditures	1,718,000.00
Total	2,328,000.00

Table 35 (from page VI-A-35)

Item II. Current and Capital Expenditures for Digital Computer Activities,* by Source of Funds for Reporting Period
Institutions Offering Two to Four Years Beyond 12th Grade
SAMPLE SIZE 141 POP. SIZE 688

Source of Funds	Current expenditures (1)	Capital** expenditures (2)	Total Col. (1)+(2) = (3)	Projected 1968-9 Total
A. Federal Government:				
1. Contracts and grants primarily for computer activities ***	478,000.00	746,000.00	1,225,000.00	1,609,000.00
2. Other contracts and grants	---,000.00	---,000.00	---,000.00	253,000.00
B. Institution's own funds	2,941,000.00	1,835,000.00	4,776,000.00	10,715,000.00
C. Other sources (gifts, contracts, and grants from industry, State and local governments, etc.)	388,000.00	1,149,000.00	1,538,000.00	1,690,000.00
D. Totals	3,810,000.00	3,731,000.00	7,541,000.00	14,268,000.00

* Activities includes everything except the use of the computers for the institution's own administrative affairs.

** Includes purchases of computer and peripheral equipment.

*** Total in column (3) should equal the total of all entries in Item V-A.

Item V.

Table 36 (from page VI-B-34)
Expenditures of Funds Intended by the Funding Agency to be Used Primarily for the Support of Computer Equipment, Buildings, and Activities
Institutions Offering Two to Four Years Beyond 12th Grade
SAMPLE SIZE 141 POP. SIZE 688

Sources of Funds	Digital Computer Equipment or Buildings		Computer Time for		Computer Science Activities* (5)
	Rental or Purchase Cost (1)	Operating Cost (2)	R&D & Grad. Instruction (3)	Undergrad. Instruction (4)	
2. Sums of all other Federal Grants and Contracts (individual rates of less than $50,000 per year)	,000.00	,000.00	,000.00	,000.00	,000.00
** Total Federal	770,000.00	162,000.00		118,000.00	
B. Non-Federal Grants and Contracts: 1. Annual Rates Greater than $50,000 (identify)					
a.	,000.00	,000.00	,000.00	,000.00	,000.00
b.	,000.00	,000.00	,000.00	,000.00	,000.00
c.	,000.00	,000.00	,000.00	,000.00	,000.00
d.	,000.00	,000.00	,000.00	,000.00	,000.00
2. Other non-Federal Grants and Contracts	,000.00	,000.00	,000.00	,000.00	,000.00
Total Non-Federal	783,000.00	185,000.00		281,000.00	28,000.00
C. Total of A and B, 1964-5	1,553,000.00	348,000.00	,000.00	400,000.00	28,000.00
D. Total Projected, 1968-9	1,470,000.00	321,000.00	,000.00	410,000.00	28,000.00

*Computer Science Activities: Includes institutes, academic programs support, fellowships, etc.
**Includes Federal Grants and Contracts in excess of $50,000 per year from previous page of questionnaire.

Table 37 (from page V-24)

Item I. Institutions offering Two to four years beyond 12th grade
Sample size 141 Population size 688

B. Computer Science Instruction Programs:

(1) What degree programs did your institution offer in 1964-65, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Degrees (check appropriate ones)			
		Assoc.	Bach.	Masters	Doctorate
a. Computer Science	0	0			
b. Business Data Processing	69	69			
c. Scientific Data Processing	0	0			
d.					

(2) What degree programs does your institution plan to offer in the next three years, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Total	Assoc.	Bach.	Masters	Doctorate
a. Computer Science	6	6			
b. Business Data Processing	61	61			
c. Scientific Data Processing	11	11			
d.					

(3) Estimate and project the number of students being trained to use computers at your institution.

	Graduate		Undergraduate	
	1964-5	1968-9	1964-5	1968-9
a. Computer Science majors	78	101	2,968	9,454
b. Other majors (with at least some skill in using one programming language)	1,000	1,839	6,839	15,188

5. Numbers of "Computer Science" Majors and Numbers of Students Being Trained to Use Computers

Although an estimated 78 graduate majors (obviously data processing from section D) were enrolled in FY65 and 101 expected in FY69 it is not clear whether these are students beyond the bachelor's degree or associate degree (most likely, the latter). Nearly 3000 undergraduate majors in data processing were enrolled in FY65 and nearly 9500 are expected to be present for FY69.

Students receiving some computer education included 1000 "graduate" students and nearly 7000 undergraduates in FY65. These figures for FY69 are estimated to be nearly 7000 and over 15,000, respectively: (see Table 37).

6. Distribution of Usage as Percentage of Cost

The estimates given in Table 38 indicate that usage was spotty with the median percentage of use for computer science (data processing) at the undergraduate level being 81%. A few institutions had small percentages of use in engineering and the physical sciences for undergraduate instruction. About 34 institutions are estimated to have had "other" undergraduate instruction use at fairly high percentages since the median use in this category was estimated as being 60%. It is quite possible that some of these should have been included in the "computer science" category. Usage is expected to span all academic areas for FY69 with "computer science" and "other" to have median percentages of 64% and 75%, respectively.

Table 38

Item VII. Utilization of Digital Computers for Research, Development and Education
Institutions Offering two to four years Beyond 12th grade
Sample size 141 Population size 688

Purpose	Distribution as percentage of cost of total utilization (Total annual cost = 100%)						
	Engineering (1)	Physical Sciences (2)	Life Sciences (3)	Social Sciences (4)	Computer Sciences (5)	Other (6)	Total (7)
(1) R&D and Graduate Instruction — Median	—	—	—	—	—	88	88
( ) Estimated No. of Institutions	(0)	(0)	(0)	(0)	(0)	(6)	(6)
(2) Undergraduate Instruction	18[a]	13	—	—	81	60	88
	(39)	(17)	(0)	(0)	(88)	(34)	(99)
(3) Computer Center (e.g., R&D in Software not included elsewhere)	[redacted]						13 (18)
(4) Library Sciences, Information Retrieval Systems (e.g., R&D in IRS not included elsewhere)	[redacted]						13 (6)
(5) Extra-Institutional	[redacted]						$\overline{(0)}$
(6) Total (1) through (5)	18 (39)	13 (17)	$\overline{(0)}$	$\overline{(0)}$	81 (88)	67 (40)	100 (105)
(7) Total (6) projected to 1968-9	18 (56)	13 (42)	15 (26)	13 (20)	64 (99)	75 (66)	88 (132)

[a] See footnote on Table 9 for interpretation

G. RECOMMENDATIONS FOR FURTHER STUDY

1. Further Analyses of Summaries from Present Study

There are literally thousands of comparisons, estimates, and projections that can be made from the results of this study. The sampling design provided for 38 different strata, hence estimates for all variables are available for each stratum. These estimates can then be combined (cautiously, since standard errors were not computed) over any desired combinations of strata. Five such combinations were discussed on previous pages of this report, namely, all institutions, doctoral granting institutions, institutions offering masters and/or second professional degrees, bachelors and/or first professional degrees and institutions offering two to four years beyond 12th grade. Other groupings which were summarized but not discussed are public institutions by level of highest offering and private institutions by level. All of the summaries mentioned above are on file in the Office of Computer Activities of the National Science Foundation and most of them (those containing sufficient information) are included in Sections II-VII of this publication. Those who have needs for summary information not discussed here are referred to these sources.

2. Future Studies

If there is a need in the near future for the kind of detail which this survey treated, I recommend that serious consideration be given to a refinement of the sampling design based upon the knowledge gained from this study. The information gathered under Item I is being included in the NSF Inventory of Computers, Applications of Computers, and Instructional Programs in U. S. Higher Education which is being established by the Computer Sciences Project of SREB. With this information available elsewhere, good enough estimates can be obtained on the financial variables with a much smaller sample. The stratification variates used in this study are not adequate for this purpose. Careful consideration must be given to strata selection by those for whom the survey is intended to provide information. These concerns plus considerations relative to providing greatest accuracy of the estimates at minimum cost will provide the proper basis for stratification.

A desirable approach to re-design for future studies would be to select a sampling design, draw a sample accordingly and then use the present data files, or those of the new NSF inventory, to test the efficiency of the sampling design. This process would likely need to be repeated several times before a satisfactory design would be accepted. For such simulation studies it would be necessary to compute the standard errors as well as the estimates of the variables under consideration. Obviously, the design cannot guarantee that all variables are to be controlled to the same degree of accuracy. The most critical variables should be used to establish the sampling design.

REFERENCES

(1) Digital Computer Needs in Universities and Colleges (Rosser Report) National Academy of Sciences, National Research Council, Washington, D. C., 1966, 176 p.

(2) Opening Fall Enrollment in Higher Education, 1965, Office of Education, U. S. Department of H. E. W., Superintendent of Document, U. S. Government Printing Office, Washington, D. C. 20042, 50 cents.

APPENDIX A.

THE SURVEY

1. Survey Design

In March 1966 the National Science Foundation contracted with the Southern Regional Education Board for its Computer Sciences Project to finalize the questionnaire, disseminate it to the institutions of higher education, process the returns, and summarize the results. Upon the recommendation of the Bureau of the Budget, the National Center for Educational Statistics of the Office of Education drew a stratified (systematic) random sample of approximately seven hundred (700) of the nation's over twenty-two hundred (2,200) institutions of higher education. The total population was first stratified into thirty-eight (38) strata on the basis of three characteristics as follows:

	Code
A. Type of Control (CTL)	
a. Public	1
b. Private	2
B. Type of Institution (TYPE)	
a. Semiprofessional School	0
b. Private	1
c. Liberal Arts College	2
d. Teachers College	4
e. Independent Technological School	5
f. Theological or Religious School	6
g. Other Independent Professional School	7
h. Junior College	8
i. Technical Institution	9
C. Highest Level of Offering (LEVEL)	
a. 2 to 4 Years beyond 12th Grade	1
b. Bachelors and/or First Professional Degrees	2
c. Masters and/or Second Professional Degrees	3
d. Doctor of Philosophy or Equivalent Degrees	4
e. Other	5

All strata for doctoral granting institutions were sampled 100%. Sixteen strata contained fewer than ten institutions and were also left in completely. Various sampling rates (from 10% to 50%) were selected for the remaining strata and a systematic random sample was taken from each of these strata after their institutions had been sorted on enrollment.

A punched card deck for the institutions in the sample was then furnished to SREB by the Office of Education. One card for each school contained the name and address of the school, its state and identification code numbers and the stratification variates.

2. General Response

When all factors are considered, I feel that the response was quite good. The overall response rate was 92%. Response rates and effective sampling ratios are shown by strata in Table 1.

The questionnaires were all mailed within a two-day period in mid-July, 1966. The first follow-up was in the form of a reminder letter on September 23 and was sent to the president of all of the institutions which had not responded. A second follow-up, a return postcard type, was sent on December 20 and another letter was dispatched on January 20, 1967. The important characteristic of the follow-ups was that they were sent simultaneously to all non-respondents as of a given time. No special prodding was given to individual institutions. Because of the manner in which the follow-ups were handled and the high rate of response for the strata which provide the greatest contribution to the total estimates, non-respondents have been considered as not having been in the sample originally rather than attempting to make corrections for missing data (i.e., the sample number for a given stratum is taken to be the number of respondents from the original sample).

3. General Appraisal of Accuracy of Responses

Since this survey was the first statistical study to delve deeply into the sources of funds and types of expenditures for college and university computing facilities, it posed a great problem for many of the larger institutions. I am certain that many man days were required to provide the requested data in some cases. Though the temptation to use a random number generator might have been strong at times, I feel certain that a very high percentage of the institutions made an honest effort to obtain and report accurate figures. I personally edited each returned instrument and verified that certain cross checks which had been built into the questionnaire did check. In some cases a phone call was necessary to iron out a discrepancy. Occasionally an institution did not respond to an item rather than insert estimates, even though they were encouraged to do so in the instructions which accompanied the questionnaire. This was particularly true for the last page of the questionnaire dealing with distribution of usage by percent, the indirect cost items and the manufacturers' contributions.

4. General Appraisal of Accuracy of Estimates

The accuracy of the estimates will vary from item to item. Those which were easily identifiable such as machine rental and salaries for 1964-65 are probably accurate to within $\pm$ 10% whereas something like indirect costs may be off as much as 20% on the low side. In this case a bias was introduced because of the frequency of non-response or obviously low response. To partially correct for this bias a 20% of direct costs amount was supplied whenever the item was left blank. In no case do I recall that an excessive rate was included but in many cases an obviously low rate was reported, thus leading me to conjecture that the estimates of indirect costs are about 20% low. By essentially the same observations and reasoning I believe the manufacturer's contribution to be as much as 30% low.

TABLE 1

Population, Sample and Response Summary

Strata CTL	Strata TYPE	Strata LEVEL	Number of Institutions: In Population N	In Sample n	Responding n'	Percent Response 100 n'/n	Effective Sampling Ratio N/n'
Public:							
Universities							
1	1	4	106	106	97	91	1.09
Other Four-Year Institutions							
1	1	3	4	4	4	100	1.00
1	2	2	48	12	12	100	4.00
1	2	3	60	20	18	90	3.33
1	2	4	7	7	7	100	1.00
1	2	5	1	1	1	100	1.00
1	4	2	37	10	9	90	4.11
1	4	3	116	39	33	85	3.52
1	4	4	5	5	5	100	1.00
1	5	2	6	6	5	83	1.20
1	5	3	7	7	6	86	1.17
1	5	4	6	6	6	100	1.00
1	7	2	1	1	1	100	1.00
1	7	3	1	1	1	100	1.00
1	7	4	8	8	8	100	1.00
Two-Year Institutions							
1	0	1	8	3	3	100	2.67
1	8	1	400	79	71	90	5.63
1	9	1	20	10	8	80	2.50
All Public			841	325	295	91	--
Private:							
Universities							
2	1	4	66	66	61	92	1.08
Other Four-Year Institutions							
2	1	3	9	9	9	100	1.00
2	2	2	508	85	81	95	6.27
2	2	3	172	57	55	97	3.13

TABLE 1
(continued)

Population, Sample and Response Summary

Strata CTL	Strata TYPE	Strata LEVEL	Number of Institutions: In Population N	In Sample n	Responding n'	Percent Response 100 n'/n	Effective Sampling Ratio N/n'
Other Four-Year Institutions (continued)							
2	2	4	22	22	20	91	1.10
2	4	2	19	6	5	83	3.80
2	4	3	8	8	8	100	1.00
2	4	4	1	1	1	100	1.00
2	5	2	14	7	5	72	2.80
2	5	3	6	6	5	83	1.20
2	5	4	9	9	7	78	1.29
2	6	2	108	10	10	100	10.80
2	6	3	70	10	8	80	8.67
2	6	4	29	7	6	86	4.83
2	7	2	53	14	14	100	3.79
2	7	3	13	13	11	85	1.18
2	7	4	11	11	9	82	1.22
Two-Year Institutions							
2	0	1	22	11	10	91	2.20
2	8	1	231	47	43	91	5.37
2	9	1	7	7	6	86	1.17
All Private			1,378	406	374	92	--
All Institutions			2,219	731	669	92	--

Standard errors for the estimates were not computed because of need for economy in the processing costs, and because the high percentage of contribution to the estimates by universities (originally in sample 100%). Because of the latter and the biases referred to above I do not feel that the standard errors would have provided sufficient additional useful information to justify the added processing costs.

APPENDIX B

Projections of numbers of institutions with computers and number of computers in institutions for research and instructional purposes.

The data used for the Rosser Report also included computers used solely for administrative purposes (approximately 100). The number of computers used for research and instruction were obtained as follows:

No. for January 1966 (880) = No. installed (858) plus no. on order for delivery in 1965 (22)

No. for January 1967 (991) = No. for January 1966 (880) plus no. on order for delivery in 1966 (211) minus no. to be replaced (100)

No. for January 1968 (1100) = No. for January 1967 (991) plus no. on order for delivery in 1967 (209) minus no. to be replaced (100)

These three points are approximately collinear. Projections for 1969 and 1970 were obtained by extending the line connecting these three points to give approximately 1200 and 1300 for the number of computers expected to be in use at colleges and universities primarily for research and instructional purposes by January 1969 and January 1970, respectively. I feel that these estimates are more in line with reality than what we would get by using the number of computers given as being on order for 1968 and 1969 since colleges and universities do not plan that far ahead as a rule.

The survey estimates give 707 as the number of schools having access to at least one computer for research and instruction. If we place this figure as being representative of the situation as of January 1967, then we have an approximate excess of 300 computers over the number of schools. By assuming this difference to remain constant we can draw a line from this point parallel to the line for the no. of computers.

From the above assumptions we arrive at the estimates given in Table 6.

TABLE 1

Strata	Number of Institutions	Estimated Number of Institutions with Computers	Percentage
Public:			
Universities			
1 1 4	106	103	97%
Other Four-Year Institutions			
1 1 3	4	4	
1 2 2	48	20	
1 2 3	60	50	
1 2 4	7	6	
1 2 5	2	1	
1 4 2	37	4	
1 4 3	116	56	
1 4 4	5	4	
1 5 2	6	4	
1 5 3	7	7	
1 5 4	6	6	
1 7 2	1	0	
1 7 3	1	1	
1 7 4	8	5	
	308	168	55%
Two-Year Institutions			
1 0 1	8	0	
1 8 1	400	141	
1 9 1	20	8	
	428	149	35%
All Public	842	420	50%
Private:			
Universities			
2 1 4	65	61	94%
Other Four-Year Institutions			
2 1 3	9	8	
2 2 2	508	82	
2 2 3	172	81	
2 2 4	22	17	
2 4 2	19	0	
2 4 3	8	1	

TABLE 1 - Continued

Strata	Number of Institutions	Estimated Number of Institutions with Computers	Percentage
Other Four-Year Institutions (continued)			
2 4 4	1	0	
2 5 2	14	6	
2 5 3	6	4	
2 5 4	9	7	
2 6 2	108	0	
2 6 3	70	0	
2 6 4	29	0	
2 7 2	53	8	
2 7 3	13	5	
2 7 4	11	6	
	1,052	225	21%
Two-Year Institutions			
2 0 1	22	0	
2 8 1	231	0	
2 9 1	7	1	
	260	1	0%
All Private	1,377	287	
All Universities	172	164	95%
All Other Four-Year Institutions	1,359	393	29%
Two-Year Institutions	688	150	22%
TOTAL	2,219	707	32%

TABLE 2
Number of Computers Installed and On Order by Strata

Strata	Estimated No. Installed 6/30/65	Estimated No. On Order 1966-69	Estimated No. to be Replaced 1966-69	Estimated No. Computers (Net)	Percent Net Increase
Public:					
Universities					
1 1 4	284	121	86	319	12
Other Four-Year Institutions					
1 1 3	4	2	1	5	25
1 2 2	12	8	0	20	67
1 2 3	52	34	22	64	23
1 2 4	10	2	4	8	(20)
1 2 5	2	0	0	2	0
1 4 2	0	4	0	4	--
1 4 3	31	41	7	65	110
1 4 4	4	4	3	5	25
1 5 2	3	2	0	5	67
1 5 3	7	2	1	8	14
1 5 4	9	7	3	13	45
1 7 3	1	1	1	1	0
1 7 4	7	4	1	10	43
	142	111	43	210	48
Two-Year Institutions					
1 8 1	77	109	21	165	114
1 9 1	7	0	0	7	0
	84	109	21	172	105
Private:					
Universities					
2 1 4	169	75	56	188	11
Other Four-Year Institutions					
2 1 3	7	3	0	10	43
2 2 2	55	36	0	91	65
2 2 3	67	39	15	91	36
2 2 4	18	9	6	21	17
2 4 3	1	0	0	1	0
2 5 2	5	0	0	5	0
2 5 3	3	2	2	3	0
2 5 4	11	7	5	13	18
2 7 2	3	3	0	6	100
2 7 3	3	1	0	4	33
2 7 4	5	1	1	5	0
	178	101	29	250	40

Table 2 - continued

Strata	Estimated No. Installed 6/30/65	Estimated No. On Order 1966-69	Estimated No. to be Replaced 1966-69	Estimated No. Computers (Net)	Percent Net Increase
Two-Year Institutions					
291	1	1	1	1	0
All Institutions	858	518	236	1,140	33

Appendix C

Estimated Number of Degree Programs by Name of Program

Totals

	A	B	M	D	T
Going	83	44	61	38	226
Planned	105	107	76	43	331
Total	188	151	137	81	557

LEGEND

A = Associate
B = Bachelor
M = Master
D = Doctorate
T = Total

Computer Science

	A	B	M	D	T
Going	0	11	17	12	40
Planned	17	81	59	26	183
Total	17	92	75	38	223

Business Data Processing

	A	B	M	D	T
Going	83	6	3	1	93
Planned	74	9	1	1	85
Total	157	15	4	2	178

Information Science

	A	B	M	D	T
Going	0	2	12	4	18
Planned	0	2	5	9	16
Total	0	4	17	13	34

Scientific Data Processing

	A	B	M	D	T
Going	0	0	0	0	0
Planned	13	0	0	0	13
Total	13	0	0	0	13

Options In:

Math

	A	B	M	D	T
Going	0	10	8	6	24
Planned	1	7	4	1	13
Total	1	17	12	7	37

Electrical Engineering

	A	B	M	D	T
Going	0	5	8	6	19
Planned	0	2	1	1	4
Total	0	7	9	7	23

Applied Science

	A	B	M	D	T
Going	0	0	1	0	1
Planned	0	0	1	1	2
Total	0	0	2	1	3

Management Science

	A	B	M	D	T
Going	0	0	2	1	3
Planned	0	0	1	1	2
Total	0	0	3	2	5

Appendix C (cont'd)

Estimated Number of Degree Programs by Name of Program
(continued)

Quantitative Analysis

	A	B	M	D	T
Going	0	1	2	1	4
Planned	0	0	0	0	0
Total	0	1	2	1	4

Linguistics

	A	B	M	D	T
Going	0	0	1	1	2
Planned	0	0	0	0	0
Total	0	0	1	1	2

Information Systems

	A	B	M	D	T
Going	0	0	0	0	0
Planned	0	1	3	1	5
Total	0	1	3	1	5

Statistics

	A	B	M	D	T
Going	0	0	1	1	2
Planned	0	1	1	1	3
Total	0	1	2	2	5

Systems Engineering

	A	B	M	D	T
Going	0	1	1	1	3
Planned	0	3	0	0	3
Total	0	4	1	1	6

Administrative Science

	A	B	M	D	T
Going	0	3	0	0	3
Planned	0	1	0	0	1
Total	0	4	0	0	4

Machine Computers

	A	B	M	D	T
Going	0	1	1	0	2
Planned	0	0	0	1	1
Total	0	1	1	1	3

Systems Analysis

	A	B	M	D	T
Going	0	1	1	0	2
Planned	0	0	0	0	0
Total	0	1	1	0	2

Industrial Engineering

	A	B	M	D	T
Going	0	1	1	1	3
Planned	0	0	0	0	0
Total	0	1	1	1	3

Systems and Communications Science

	A	B	M	D	T
Going	0	2	2	3	7
Planned	0	0	0	0	0
Total	0	2	2	3	7

APPENDIX D

GENERAL AVAILABILITY OF COMPUTERS TO STUDENTS IN HIGHER EDUCATION

The data on computers and computer science programs was furnished by the institutions during the fall of 1966. Even though the financial data was requested for the year 1964-65, there was no clear-cut instruction as to a definite cut-off on computers-on-hand and academic major programs going. Therefore, the institutions tended to report status quo with regard to these items. The major exception being that computers installed after July 1, 1965, were generally listed as "on order." For these reasons, it appears logical to use enrollment figures for the fall of 1965 for any statements regarding computers in groups of institutions vs. enrollments. The sample of institutions was drawn from a spring 1966 version of the Office of Education list of higher institutions and will therefore not agree exactly with those appearing in Opening Fall Enrollment in Higher Education, 1965, Office of Education.

The estimates obtained in Tables 1 and 2 are made possible because of the manner in which the samples were drawn for each strata. The method used is called systematic random sampling after the institutions within each stratum were sorted according to enrollment. The methods used in the computations of the estimates do not warrant precise statements. However, we are safe in saying that computers are available in public higher institutions enrolling approximately 45% of our 6 million higher education students, in private higher institutions enrolling 15% of the students or that computers are available on campuses which enroll approximately 60% of the college and university students. Conversely, we can say that approximately two out of every five college and university students have no opportunity to have access to a computer.

Appendix D
Table 1.

Level of Institutions and Type of Control	1965 Fall Enrollment	Estimated Total No. of Students Introduced to Computer/Year	Estimated for 4-Year Period	Percent of Total Enrollment	Estimated 1968 Fall Enrollment	Estimated Total No. of Students to be Introduced to Computers	Estimated for 4-Year Period	Percent of Total Enrollment
Public:								
Universities	1.7	.07	.28	16	2.1	.22	.88	42
Other Four-Year Institutions	1.3	.02	.08	6	1.5	.05	.20	13
Two-Year Institutions	1.0	.01	.04	4	1.1	.03	.12	11
All Public	4.0	.10	.40	10	4.7	.30	1.20	26
Private:								
Universities	.7	.03	.12	17	.7	.08	.32	46
Other Four-Year Institutions	1.2	.03	.12	10	1.4	.09	.36	26
Two-Year Institutions	.1	.00	.00	0	.2	.00	.00	0
All Private	2.0	.06	.24	12	2.3	.17	.68	30
All Universities	2.4	.10	.40	17	2.8	.30	1.20	43
All Other Four-Year Institutions	2.5	.05	.20	13	2.9	.14	.56	19
All Two-Year Institutions	1.1	.01	.04	4	1.3	.03	.12	9
ALL INSTITUTIONS	6.0	.16	.64	11	7.0	.47	1.88	27

Appendix D
Table 2.

Level of Institutions and Type of Control	(1) No. of Institutions	(2) Estimated* No. of Institutions with Computers	(3) Est. % of Institutions with Computers (2) ÷ (1)	(4) 1965 Fall Enrollment (Millions)	(5) Estimate of No. Students in Institutions with Computers (Millions)
Public:					
Universities	106	103	97	1.7	1.6
Other Four-Year Institutions	307	168	55	1.3	.7
Two-Year Insitutions	428	149	35	1.0	.4
All Public	841	420	50	4.0	2.7**
Private:					
Universities	66	61	92	.7	.6
Other Four-Year Institutions	1,052	225	21	1.2	.3
Two-Year Institutions	260	1	0	.1	.0
All Private	1,378	287	21	2.0	.9**
All Universities	172	164	95	2.4	2.2**
All Other Four-Year Institutions	1,359	393	29	2.5	1.0**
All Two-Year Institutions	688	150	22	1.1	.4**
ALL INSTITUTIONS	2,219	707	32	6.0	3.6**

* See Table 1 for estimates by strata. (Appendix B)
** Obtained by addition of proper basic estimates, not (3) X (4)

Budget Bureau No. 99-6608
Approval Expires 3/15/67

QUESTIONNAIRE ON EXPENDITURES, SOURCES OF FUNDS, AND UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH AND INSTRUCTIONAL USES ONLY, 1964-5

Item I. General Information

A. Identification of institution and computer systems:

(1) Campus Address _____

(2) Institutional Representative providing data:

_____
Name Title Telephone Number

(3) 12-Month reporting period (if other than 7/1/64 to 6/30/65) _____

(4) List of Computer Systems included in report (i.e., IBM 7090, CDC 3600, GE 235, etc.)

Computer System	Year Installed	Lease	Purch.	Both	Avg. Use Hrs./Mo.	Computer System	Year Installed	Lease	Purch.	Both	Avg. Use Hrs./Mo.
a.						f.					
b.						g.					
c.						h.					
d.						i.					
e.						j.					

(5) Computer Systems on order (if any) and dates of expected delivery. (Include only systems for which legal commitments have been made.)

*Computer System	Delivery Year	Computer System	Delivery Year
a.		c.	
b.		d.	

(6) Which computers listed in (4), if any, are to be replaced by those listed in (5)?

a	b	c	d	e	f	g	h	i	j

Item I. (continued)

B. Computer Science Instruction Programs:

(1) What degree programs did your institution offer in 1964-65, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Degrees (check appropriate ones)			
	Assoc.	Bach.	Masters	Doctorate
a.				
b.				
c.				
d.				

(2) What degree programs does your institution plan to offer in the next three years, if any, in Computer Science, Information Science, Data Processing, etc.?

Name of Program	Assoc.	Bach.	Masters	Doctorate
a.				
b.				
c.				
d.				

(3) Estimate and project the number of students being trained to use computers at your institution.

	Graduate		Undergraduate	
	1964-5	1968-9	1964-5	1968-9
a. Computer Science majors				
b. Other majors (with at least some skill in using one programming language)				

Item II. Current and Capital Expenditures for Digital Computer Activities,* by Source of Funds for Reporting Period

Source of Funds	Current expenditures (1)	Capital** expenditures (2)	Total Col. (1)+(2) = (3)	Projected 1968-9 Total
A. Federal Government:				
1. Contracts and grants primarily for computer activities ***	,000.00	,000.00	,000.00	,000.00
2. Other contracts and grants	,000.00	,000.00	,000.00	,000.00
B. Institution's own funds	,000.00	,000.00	,000.00	,000.00
C. Other sources (gifts, contracts, and grants from industry, State and local governments, etc.)	,000.00	,000.00	,000.00	,000.00
D. Totals	,000.00	,000.00	,000.00	,000.00

* Activities includes everything except the use of the computers for the institution's own administrative affairs.

** Includes purchases of computer and peripheral equipment.

*** Total in column (3) should equal the total of all entries in Item V-A.

Item III. Current Expenditures for Digital Computer Activities by Cost Items and Number of Personnel

Cost Item	1964-5	1968-9 Projection
A. Current (1964-5) and Projected (1968-9) expenditures for digital computer activities		
1. Equipment rentals	,000.00	,000.00
2. Rental or costs for building space to house computer activities	,000.00	,000.00
3. Maintenance costs not already included in (1) or (2)	,000.00	,000.00
4. Salaries and wages of personnel		
a. Systems and utility programmers	,000.00	,000.00
b. Administrative and other professional	,000.00	,000.00
c. All other (e.g., keypunch and other operators, clerical, technicians)	,000.00	,000.00
5. Costs for purchase of off-campus computing service	,000.00	,000.00
6. Other direct costs (including materials and supplies)	,000.00	,000.00
7. Indirect costs (general institutional administrative and general expense allocation)	,000.00	,000.00
Total	,000.00	,000.00

B. Please indicate full time equivalent number employed for items 4 (a), 4 (b), and 4 (c) above:

	Number of Personnel	
	1964-5	1968-9 Projection
1. Systems and utility programmers		
2. Administrative and other professional		
3. All other (keypunch and other operators, clerical, technicians, etc.)		

Item IV.

Capital Expenditures for Digital Computer Activities

Year	Item		
	Computers and Peripheral Equipment	Buildings to House Computer Activities	Furniture, Fixtures, and other Equipment
1964-5	,000.00	,000.00	,000.00
1965-6 projection	,000.00	,000.00	,000.00
1966-7 projection	,000.00	,000.00	,000.00
1967-8 projection	,000.00	,000.00	,000.00
1968-9 projection	,000.00	,000.00	,000.00

Item V. Expenditures of Funds Intended by the Funding Agency to be Used Primarily for the Support of Computer Equipment, Buildings, and Activities

Source of Funds	Digital Computer Equipment or Buildings		Computer Time for		Computer Science Activities* (5)
A. Federal Grants and Contracts 1. Annual Rates Greater than $50,000 per yr.	Rental or Purchase Cost (1)	Operating Cost (2)	R&D & Grad. Instruction (3)	Undergrad. Instruction (4)	
a. Agency _____ Grant or Contract Number _____ Effective Date _____ to _____ Agency Program Monitor (individual) if known _____	,000.00	,000.00	,000.00	,000.00	,000.00
b. Agency _____ Grant or Contract Number _____ Effective Date _____ to _____ Agency Program Monitor (individual) if known _____	,000.00	,000.00	,000.00	,000.00	,000.00
c. Agency _____ Grant or Contract Number _____ Effective Date _____ to _____ Agency Program Monitor (individual) if known _____	,000.00	,000.00	,000.00	,000.00	,000.00
d. Agency _____ Grant or Contract Number _____ Effective Date _____ to _____ Agency Program Monitor (individual) if known _____	,000.00	,000.00	,000.00	,000.00	,000.00

(Use separate attachment listing additional items if necessary.)
*Computer Sciences Activities: Includes institutes, academic program support, fellowships, etc.

Item V. (continued)

Sources of Funds	Digital Computer Equipment or Buildings		Computer Time for		Computer Science Activities* (5)
	Rental or Purchase Cost (1)	Operating Cost (2)	R&D & Grad. Instruction (3)	Undergrad. Instruction (4)	
2. Sums of all other Federal Grants and Contracts (individual rates of less than $50,000 per year)	,000.00	,000.00	,000.00	,000.00	,000.00
B. Non-Federal Grants and Contracts: 1. Annual Rates Greater than $50,000 (identify)					
a. _____	,000.00	,000.00	,000.00	,000.00	,000.00
b. _____	,000.00	,000.00	,000.00	,000.00	,000.00
c. _____	,000.00	,000.00	,000.00	,000.00	,000.00
d. _____	,000.00	,000.00	,000.00	,000.00	,000.00
2. Other non-Federal Grants and Contracts	,000.00	,000.00	,000.00	,000.00	,000.00
C. Total of A and B, 1964-5	,000.00	,000.00	,000.00	,000.00	,000.00
D. Total Projected, 1968-9	,000.00	,000.00	,000.00	,000.00	,000.00

*Computer Science Activities: Includes institutes, academic programs support, fellowships, etc.

Item VI. Additional Institutional and Manufacturers' Contributions

A. Adequacy of charges as a means of support for sponsored research and development projects

1. Did money received from sponsored R&D projects for computer usage equal the amount actually used in the case of

   a. R&D projects sponsored by the Federal Government _____ Yes _____ No

   b. R&D projects sponsored by non-Federal agencies (excluding institution's own funds) _____ Yes _____ No

2. If "no" in 1 (a) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by Federal agencies. ,000.00

3. If "no" to 1 (b) above, estimate the institution's own funds that were used to defray the costs of furnishing additional computing services to R&D projects sponsored by non-Federal agencies. ,000.00

B. Equipment manufacturers' contribution

1. Estimated contributions toward purchase and/or rental of equipment made available from manufacturers in the form of discounts, allowances, etc., 1964-5.

Current Expenditures	,000.00
Capital Expenditures	,000.00
Total	,000.00

Item VII. Utilization of Digital Computers for Research, Development and Education

Purpose	Distribution as percentage of cost of total utilization (Total annual cost = 100%)						
	Engineering (1)	Physical Sciences (2)	Life Sciences (3)	Social Sciences (4)	Computer Sciences (5)	Other (6)	Total* (7)
(1) R&D and Graduate Instruction							
(2) Undergraduate Instruction							
(3) Computer Center (e.g., R&D in Software not included elsewhere)	[redacted]						
(4) Library Sciences, Information Retrieval Systems (e.g., R&D in IRS not included elsewhere)							
(5) Extra-Institutional							
*(6) Total (1) through (5)							
*(7) Total (6) projected to 1968-9							

* The sum of the entries in Column 1-6 should equal the entry in Column 7 for lines 1 and 2 only.

** The sum of the entries in Columns 1-6 may not equal 100%.

Budget Bureau No. 99-6608
Approval Expires 3/15/67

National Survey on Expenditures, Sources of Support, and Utilization of Digital Computers at Academic Institutions in Research and Instruction, 1964-5*

General Comments:

This questionnaire is intended to be used to summarize data on all digital computers used in research and instructional activities at a single major campus of an institution. Because of the importance being attached to this study, a careful attempt has been made to request information in a manner which would be readily available at most institutions. However, it is recognized that individual differences among academic institutions may make some of the information difficult or impossible to provide in the manner requested. Do not report expenditures or utilization figures for equipment used in the administration of the institution. If computer facilities are used jointly for administration, research, instructional, and area services, then allocate costs on the basis of the percentage of non-administration uses.

Separate forms should be completed for each campus. However, more than one form may be used for a single campus when significant distortions would result otherwise.

"Equipment" refers to all electronic digital computers and peripheral equipment such as card readers, card punches, etc.

At many institutions a substantial investment in computer equipment will exist separate from a centralized installation. It is intended that all such equipment and usage be included. Fiscal information should be given in thousands of dollars, rounded to the nearest thousand. Data accurate to within ten percent would be most useful, but if this is not possible, rougher estimates should be included.

This survey is being carried out by the Computer Sciences Project of the Southern Regional Education Board for and under contract with the National Science Foundation. No part of the financial data will appear in any form which will be identifiable with the institution.

*1964-5 data is requested for uniformity even though later data might be available.

Comments on Specific Items:

Item I:

A(2) Normally, the individual preparing the questionnaire and from whom additional information can be obtained, if needed.

Item II:

(D) The total for current expenditures should equal the total of 1964-5 expenditures in Item III.

Item III:

(A) In cases where manufacturers discounts or other allowances for equipment have been provided, report only net costs to the institution. This instruction applies also to Item IV. (cf. Item VI)

Item V:

This Item attempts to exhibit individual, usually large, sources of funds intended primarily for computer activit es per se or for computing equipment (and buildings) intended for general research and educational needs.

V(A) Providing the name of the individual program monitor from an agency will assist efforts to coordinate institutional needs with the plans of Federal agencies.

Column (2): Include only salaries and wages, maintenance and other direct costs. (i.e., do not include overhead or indirect costs.)

Item VI:

(A) Many institutions have reported that monies received toward computing-time charges for work on sponsored R&D grants and contracts usually do not cover the cost of time actually provided to such users. Part A is intended to provide NSF with estimates of the magnitude of this discrepancy.

Item VII:

This Item is intended to indicate the distribution of computer activities for various purposes, each item being expressed as an estimated percentage of the total cost based upon usage.

VII(5) i.e., utilization of equipment or services by individuals or organizations which are not a part of the institution submitting this report.

If there are further questions, please contact:

Dr. John W. Hamblen
Computer Sciences Project Director
Southern Regional Education Board
130 Sixth Street, N. W.
Atlanta, Georgia 30313

Office Phone: 404-875-9211 (Home Phone: 404-938-0866)

II. Listing of Institutions in Sample and Their Computers
(Item I-A of Questionnaire)

Note: All institutions which responded to the questionnaire and had computers either installed or on order are listed with the exception of eleven institutions which requested that they not be listed.

Even though the questionnaire requested that the institutions "include only systems for which legal committments have been made" for on-order computers we know that this statement was not interpreted uniformly throughout the country. Changes are constantly being made on orders for a variety of reasons, particularly for large systems. The reader should not assume that the on-order status in a given instance has been consumated or represents the present status.

Strata Identification:

CTL = Type of Control

1 = Public
2 = Private

TYPE = Type of Institutions

0 = Semiprofessional School
1 = University
2 = Liberal Arts College
4 = Teachers College
5 = Independent Technological School
6 = Theological or Religious School
7 = Other Independent Professional School
8 = Junior College
9 = Technical Institution

LEVEL = Highest Level of Offering

1 = Two to Four Years beyond 12th Grade
2 = Bachelor's and/or First Professional Degree
3 = Master's and/or Second Professional Degree
4 = Doctor of Philosophy or Equivalent Degree
5 = Other

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
FLORIDA A & M UNIVERSITY TALLAHASSEE FLORIDA	32307	IBM 1401	64		*			
CUNY CITY COLLEGE NEW YORK NEW YORK	10031	IBM 7040	64				*	160
MIAMI UNIVERSITY OXFORD, OHIO	45056	IBM 1620 IBM 360/40	62 67				*	300
UNIVERSITY OF PUERTO RICO RIO PIEDRAS PUERTO RICO	00931	IBM 1401 IBM 360/30	62 67	X	*			130

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
AUBURN UNIVERSITY		IBM 1620	62			*		80
AUBURN ALABAMA	36830	IBM 7040	64		*			200
		IBM 1401	64		*			200
UNIVERSITY OF ALABAMA		UNI S580	61					576
UNIVERSITY ALABAMA	35486	UNI 1004	64			*		84
		UNI 1107	64		*			55
UNIVERITY OF ALABAMA MED CTR		IBM 7040	64		*			
BIRMINGHAM ALABAMA	35233	PDP 7	65			*		
UNIVERSITY OF ALASKA		IBM 1620	60			*		250
COLLEGE ALASKA	99735	IBM 360/40	66					
ARIZONA STATE UNIVERSITY		CDC 3400	64		*			60
TEMPE ARIZONA	85281	GEC 225	63			*		320
		IBM 1620II	63				*	320
		CDC LGP 30	58			*		150
		GEC PK4000	64			*		80
UNIVERSITY OF ARIZONA		IBM 7072	61	X			*	600
TUCSON ARIZONA	85721	IBM 1401	61	X		*		510
		CDC 6400	67					
UNIVERSITY OF ARKANSAS		IBM 7040	64		*			150
FAYETTEVILLE ARKANSAS	72701	IBM 1460	66					
UNIV OF CALIFORNIA AT BERKELEY		IBM 1620	63	X	*			400
BERKELEY CALIFORNIA	94720	IBM 1620	64			*		250
		IBM 1620	64		*			168
		IBM 1401	63		*			300
		IBM 7094	62	X			*	420
		IBM 7040	64	X			*	420
		IBM 1401	64		*			300
		IBM 1460	65		*			300
		IBM 360/30	66		*			190

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
		SDS 930	64			*		500
		SDS 910	64			*		360
		PDP 6	65			*		250
		IBM 360/40	67					
		IBM 1800	66					
		SDS 930	66					
		CDC 6400	66					
UNIVERSITY OF CALIFORNIA DAVIS		IBM 7040	63	X	*			200
DAVIS CALIFORNIA	95616	IBM 7044	65					
		PDP 8	65					
		IBM 360/50	68					
UNIVERSITY OF CALIF SAN DIEGO		CDC 1604	61			*		194
SAN DIEGO CALIFORNIA	92037	CDC 3600	64			*		134
		CDC 160A	62			*		164
		CDC 160A	65			*		164
		IBM 1401	63		*			164
UNIV. OF CAL AT LOS ANGELES		SDS 920	64		*			400
LOS ANGELES, CALIFORNIA	90024	SDS 930	65		*			400
		IBM 7040	64	X			*	625
		IBM 7094	64	X			*	625
		IBM 7094	61				*	625
		IBM 1401	61				*	625
		IBM 709	63				*	180
		IBM 7094	63	X	*			270
		IBM 7040	63	X	*			270
		IBM 360/75	66					
		IBM 360/90	67					
		IBM 360/75	67					
		IBM 360/40	66					
UNIV OF CAL AT RIVERSIDE		IBM 1620II	64	X	*			223
RIVERSIDE CALIFORNIA	92502	IBM 7040	65					

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
UNIV OF CAL AT SAN FRANCISCO		IBM 1620	61		*			160
SAN FRANCISCO CALIFORNIA	94122	IBM 1401	64	X	*			80
		IBM 360/40	66					
UNIV OF CALIFORNIA SANTA CRUZ		IBM 1620	64		*			155
SANTA CRUZ CALIFORNIA	95060	UNI 1004	65					
UNIV OF CAL AT SANTA BARBARA		IBM 1620	63		*			250
SANTA BARBARA CALIFORNIA	93106	TRW 400	64			*		300
		IBM 360/50	66					
UNIVERSITY OF CONNECTICUT		IBM 1620	61			*		200
STORRS CONNECTICUT	06268	IBM 7040	63	X	*			130
		IBM 360/67	67					
FLORIDA STATE UNIVERSITY		IBM 709	61	X		*		458
TALLAHASSE FLORIDA	32306	IBM 1401	62		*			168
		CDC 6400	66					
		IBM 1440	66					
UNIVERSITY OF FLORIDA		IBM 709	62	X		*		400
GAINESVILLE FLORIDA	32601	IBM 1401	63			*		400
		IBM 1620	63			*		65
		TRW 300	63			*		500
		IBM 360/50	67					
UNIVERSITY OF GEORGIA		IBM 7094	64			*		500
ATHENS GEORGIA	30601	IBM 1620	61			*		300
		IBM 1401	62			*		450
		IBM 1401	64			*		450
		IBM 360/67	66					
UNIVERSITY OF HAWAII		IBM 7040	63			*		580
HONOLULU HAWAII	96822	IBM 1401	63			*		580
		CDC 3100	65					
		IBM 360/50	66					

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CONTRACT NSF C465

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
UNIVERSITY OF IDAHO MOSCOW IDAHO	83843	IBM 1620	62	X	*			173
		IBM 360/40	67					
NORTHERN ILLINOIS UNIVERSITY DE KALB ILLINOIS	60115	IBM 1620	64			*		400
		IBM 360/40	67					
SOUTHERN ILLINOIS UNIV CARBONDALE ILLINOIS	62901	IBM 1620	62		*			175
		IBM 1401	62		*			20
		IBM 7040	64		*			90
		IBM 1401	65		*			50
SOUTHERN ILLINOIS UNIV EDWARDSVILLE ILLINOIS	62025	IBM 1620	64		*			
		IBM 1401	62		*			
VOCATIONAL TECHNICAL INSTITUTE CARBONDALE ILLINOIS	62901	IBM 1401	64			*		100
		IBM 360/40	68					
UNIVERSITY OF ILLINOIS URBANA ILLINOIS	61822	IBM 7094	62				*	550
		ILL IAC II	64			*		400
		CDC 1604	63			*		400
		ILL CSX I	61			*		300
		CDC G-20	63			*		130
		PAB 250	61			*		40
		IBM 1710	63		*			200
		IBM 1620	64		*			200
		IBM 1620	64		*			325
		IBM 1401	62				*	550
		IBM 1401	62				*	550
		IBM 1401	64			*		400
INDIANA UNIVERSITY BLOOMINGTON INDIANA	47405	IBM 709	62			*		250
		CDC 3600	64				*	144
		CDC 8090	64		*			200
PURDUE UNIVERSITY		IBM 1620	60		*			291

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
LAFAYETTE INDIANA	47907	IBM 1620	62		*			482
		IBM 7094	63	X	*			456
		IBM 1710	62		*			192
		CDC RP4000	61			*		200
		IBM 7044	64		*			166
		IBM 360/40	66					
		IBM 360/67	67					
		IBM 360/67	68					
IOWA ST U OF SCI AND TECH		CYC LUNE	59	X		*		164
AMES IOWA	50010	IBM 7074	62	X	*			500
		IBM 1401	62	X	*			500
		IBM 1401	64	X	*			200
		IBM 1401	60	X	*			153
		IBM 1401	64		*			200
		SDS 910	63			*		200
		SDS 910	64			*		200
		IBM 360/40	65					
		IBM 360/50	66					
UNIVERSITY OF IOWA		IBM 7040	63	X	*			308
IOWA CITY IOWA	52240	IBM 7044	64		*			360
		IBM 1401	63	X	*			400
		IBM 1460	62		*			500
		DEC LINC	64			*		50
		UNI 418	63				*	500
		UNI 418	65				*	500
		CDC 160A	63				*	400
		IBM 360/30	65					
		IBM 360/40	66					
		IBM 360/67	68					
KANSAS ST U AG AND APP SCI		IBM 1401	63		*			410
MANHATTAN KANSAS	66502	IBM 1410	63	X	*			460
		IBM 1620	61			*		530
		IBM 360/50	67					

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ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
UNIVERSITY OF KANSAS LAWRENCE, KANSAS	66044	IBM 1620	62	X	*			330
		IBM 7040	64	X	*			360
		IBM 1401	64		*			190
		GEC 625	66					
		GEC 415	66					
		GEC DN/30	66					
WICHITA STATE UNIVERSITY WICHITA KANSAS	67208	IBM 1620	61		*			100
UNIVERSITY OF KENTUCKY LEXINGTON KENTUCKY	40604	IBM 7040	64	X	*			376
		IBM 1410	62		*			328
		IBM 1620	60	X	*			215
		IBM 360/50	66					
UNIVERSITY OF LOUISVILLE LOUISVILLE KENTUCKY	40208	IBM 1710	61		*			250
		IBM 704	66					
		IBM 1130	66					
		IBM 1401	67					
LA STATE UNIV AND A&M COL BATON ROUGE LOUISIANA	70803	IBM 1620	61	X	*			350
		IBM 7040	64	X	*			300
		IBM 1401	64	X	*			300
		IBM 360/50	67					
		IBM 360/67	68					
LA STATE UNIV AT NEW ORLEANS NEW ORLEANS LOUISIANA	70122	IBM 1620	64				*	250
UNIVERSITY OF MAINE ORONO MAINE	04473	IBM 1620	61	X	*			200
		IBM 1710	00					
		IBM 360/30	68					
UNIVERSITY OF MARYLAND COLLEGE PARK MARYLAND	20742	IBM 7094	63				*	622
		IBM 1401	63				*	622

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
		CDC 160	62			*		175
		IBM 1620	60			*		100
		IBM 1620	65	X		*		320
		IBM 1620	65	X	*			295
		IBM 1401	64		*			622
		PDP 5	65			*		180
		IBM 360/30	66					
		IBM 360/44	66					
MICHIGAN STATE UNIVERSITY		CDC 3600	63			*		575
EAST LANSING MICHIGAN	48824	IBM 1500	67					
		IBM 1800	67					
WAYNE STATE UNIVERSITY		IBM 7074	62	X	*			500
DETROIT MICHIGAN	48202	IBM 1401	62	X	*			520
		IBM 1401	63	X	*			200
		IBM 1460	65	X	*			200
		IBM 1620	63		*			300
		CDC LGP 30	60			*		100
		IBM 360/40	67					
		IBM 360/67	67					
		IBM 360/50	68					
UNIVERSITY OF MINNESOTA		IBM 1401	63	X	*			150
MINNEAPOLIS MINNESOTA	55455	UNI SS80	61			*		400
		IBM 1620	62				*	125
		CDC 1604	62			*		
		CDC 160	62			*		650
		IBM 1620	65				*	
		IBM 360/30	66					
		CDC 6600	66					
		CDC 1700	66					
		CDC 3100	66					
MISSISSIPPI STATE UNIVERSITY		IBM 1620	61	X	*			340
STATE COLLEGE MISSISSIPPI	39782	IBM 1620II	64	X	*			560

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CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
		IBM 360/40	66					
UNIVERSITY OF MISSISSIPPI		IBM 1620	59				*	400
UNIVERSITY MISSISSIPPI	38677	IBM 360/44	67					
UNIV OF MISSOURI AT COLUMBIA		IBM 1620	62	X	*			188
COLUMBIA MISSOURI	65201	IBM 1710	64		*			349
		IBM 1620	63	X	*			200
		IBM 1620II	65	X	*			250
		IBM 7040	65					
		IBM 360/40	66					
UNIV OF MISSOURI AT ROLLA		IBM 1620	62	X			*	
ROLLA MISSOURI	65401	IBM 1620II	64	X	*			
		IBM 360/40	66					
		IBM 360/50	67					
		IBM 360/50	67					
MONTANA STATE UNIVERSITY		IBM 1620II	64		*			246
BOZEMAN MONTANA	59715							
UNIVERSITY OF MONTANA		IBM 1620	63			*		100
MISSOULA MONTANA	59801							
UNIVERSITY OF NEBRASKA		IBM 1410	63	X	*			500
LINCOLN NEBRASKA	68503	IBM 1620	60			*		200
		IBM 1620	63		*			300
		IBM 1620	63		*			300
		IBM 7040	65					
		IBM 360/50	66					
		IBM 360/65	67					
UNIVERSITY OF NEVADA		IBM 1620II	64		*			220
RENO NEVADA	89502							
UNIVERSITY OF NEW HAMPSHIRE		IBM 1620	60				*	260
DURHAM, NEW HAMPSHIRE	03824	IBM 360/40	66					

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
NEW MEXICO STATE UNIVERSITY		IBM 1620	63	X	*			
UNIVERSITY PARK NEW MEXICO	88070	CDC 3300	65					
		IBM 1130	67					
NEW MEXICO STATE UNIVERSITY		BUR 220	60		*			200
UNIVERSITY PARK NEW MEXICO	88070	IBM 1401	64		*			120
UNIVERSITY OF NEW MEXICO		IBM 1620	63			*		200
ALBUQUERQUE NEW MEXICO	87106	IBM 1401	63	X		*		200
		CDC 8090	64			*		150
		IBM 360/40	66					
		IBM 360/67	68					
UNIVERSITY OF NEW MEXICO		IBM 1401	63			*		200
ALBUQUERQUE NEW MEXICO	87106							
SUNY STATE UNIV AT BUFFALO		IBM 7044	64	X	*			200
BUFFALO NEW YORK	14214	IBM 1401	64	X	*			200
		IBM 1620	61			*		300
		IBM 1620	62		*			300
		IBM 360/40	66					
		IBM 360/67	67					
UNIV OF N C AT CHAPEL HILL		UNI 1105	59	X		*		257
CHAPEL HILL NORTH CAROLINA	27514	IBM 360/30	66					
		TUC 1/3	66					
N C STATE UNIV AT RALEIGH		IBM 1410	62	X	*			700
RALEIGH NORTH CAROLINA	27607	IBM 1620	62	X	*			500
		IBM 1620	64	X	*			500
		IBM 1620	62	X	*			250
		TUC 1/3	66					
		IBM 360/30	66					
NORTH DAKOTA STATE UNIVERSITY		IBM 1620	60				*	294

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CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
FARGO NORTH DAKOTA	58102							
THE UNIV OF NORTH DAKOTA GRAND FORKS NORTH DAKOTA	58201	IBM 1620 IBM 360/30	61 66	X	*			170
BOWLING GREEN STATE UNIVERSITY BOWLING GREEN OHIO	43402	IBM 1620	62				*	300
KENT STATE UNIVERSITY KENT OHIO	44240	IBM 1620 HON 2200	63 65		*			350
OHIO STATE UNIVERSITY COLUMBUS OHIO	43210	IBM 7094 IBM 360/67	63 68	X	*			159
OHIO UNIVERSITY ATHENS OHIO	45701	CDC LGP 30 IBM 1620 IBM 360/40 IBM 360/44 IBM 360/20 IBM 360/65	55 63 66 67 67 68	X	*		* *	20 600
UNIVERSITY OF AKRON AKRON OHIO	44304	IBM 1620 BUR 205 IBM 360/40 IBM 1401	61 64 67 67	X	* *			250
UNIVERSITY OF CINCINNATI CINCINNATI OHIO	45221	IBM 1620 IBM 360/40	61 67			*		450
UNIVERSITY OF CINCINNATI CINCINNATI OHIO	45221	IBM 7040 IBM 1401 IBM 360/40	63 63 67				* *	200 200
UNIVERSITY OF TOLEDO TOLEDO OHIO	43606	IBM 1620	62			*		289

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CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
OKLA STATE UNIVERSITY		IBM 1410	64	X	*			288
STILLWATER OKLAHOMA	74074	IBM 1620	63			*		450
		IBM 7040	65					
UNIVERSITY OF OKLAHOMA		IBM 1410	62	X	*			492
NORMAN OKLAHOMA	73069	IBM 1620	62		*			300
		IBM 360/40	67					
		IBM 360/65	68					
OREGON STATE UNIVERSITY		ALW III-E	57			*		200
CORVALLIS OREGON	97331	IBM 1620	61				*	200
		IBM 1410	64	X	*			100
		CDC 3300	66					
		PDP 8	00					
UNIVERSITY OF OREGON		IBM 1620	60			*		
EUGENE, OREGON	97403	IBM 360/50	66					
		PDP 7	66					
PENNSYLVANIA STATE UNIVERSITY		IBM 7074	61	X		*		720
UNIVERSITY PARK PA	16802	IBM 7074	62	X	*			240
		IBM 1401	62	X		*		650
		IBM 1410	64	X	*			650
		IBM 1620	63	X	*			80
		IBM 1620	62		*			150
		IBM 360/67	68					
		IBM 360/50	66					
UNIVERSITY OF RHODE ISLAND		IBM 1410	64		*			253
KINGSTON RHODE ISLAND	02881	IBM 360/40	66					
		IBM 360/50	68					
CLEMSON UNIVERSITY		CDC RP4000	61			*		400
CLEMSON SOUTH CAROLINA	29631	IBM 360/30	66					
UNIV OF SOUTH CAROLINA		IBM 1401	64		*			

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
COLUMBIA SOUTH CAROLINA	29208	IBM 1620	61		*			
		IBM 7040	65				*	
SOUTH DAKOTA STATE UNIVERSITY BROOKINGS SOUTH DAKOTA	57006	IBM 1620	61		*			100
UNIVERSITY OF SOUTH DAKOTA VERMILLION SOUTH DAKOTA	57069	IBM 1620	63				*	270
UNIVERSITY OF TENNESSEE KNOXVILLE TENNESSEE	37916	IBM 1620II	64		*			595
		IBM 7040	65		*			348
		IBM 1401	63		*			500
TEXAS A & M UNIVERSITY COLLEGE STATION TEXAS	77840	IBM 7094	65	X		*		236
		IBM 1401	65	X	*			236
		IBM 1401	63	X	*			236
		IBM 1401	63	X	*			236
		IBM 360/65	68					
NORTH TEXAS STATE UNIVERSITY DENTON TEXAS	76203	IBM 1620	62				*	120
TEXAS TECHNOLOGICAL COLLEGE LUBBOCK TEXAS	79409	IBM 1620	62				*	250
		IBM 1620II	64	X	*			150
		IBM 7040	65					
		IBM 1401	65					
UNIVERSITY OF HOUSTON HOUSTON TEXAS	77004	IBM 1401	00		*			360
UTAH STATE UNIVERSITY LOGAN UTAH	84321	IBM 1620	61			*		300
		IBM 1401	64		*			175
UNIVERSITY OF VIRGINIA CHARLOTTESVILLE VIRGINIA	22903	BUR 5500	64			*		50

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CTL 1 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
VIRGINIA POLYTECHNIC INST		IBM 1620	62		*			510
BLACKSBURG VIRGINIA	24061	IBM 1620	62		*			360
		IBM 1401	62		*			30
		IBM 7040	64		*			100
		IBM 1401	64		*			120
UNIVERSITY OF WASHINGTON		IBM 7040	64		*			250
SEATTLE WASHINGTON	98105	IBM 7094	64		*			250
		IBM 1401	63		*			100
WASHINGTON STATE UNIVERSITY		IBM 709	61	X		*		350
PULLMAN WASHINGTON	99163	IBM 1401	63	X	*			150
		IBM 360/67	66					
WEST VIRGINIA UNIVERSITY		IBM 1620	62		*			215
MORGANTOWN WEST VIRGINIA	26506	IBM 1401	63		*			44
		IBM 7040	64		*			128
UNIVERSITY OF WISCONSIN		CDC 1604	61			*		
MADISON, WISCONSIN	53706	CDC 160	61			*		
		IBM 1460	64		*			
		CDC 3600	64			*		
		CDC 924	64			*		
		BUR 5500	67					
UNIVERSITY OF WYOMING		PHI 211	64			*		
LARAMIE WYOMING	82070							

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CTL 1 TYPE 2 LEVEL 2

INSTITUTION	COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
SOUTHERN COLORADO STATE COL PUEBLO COLORADO 81005	IBM 1620	63				*	150
OKLAHOMA COLLEGE OF LIB ARTS CHICKASHA OKLAHOMA 73018	IBM 1130	67					
ANGELO STATE COLLEGE SAN ANGELO TEXAS 76901	IBM 1620	63		*			160
WEBER STATE COLLEGE OGDEN UTAH 84403	IBM 1401	63		*			100
W VIRGINIA INST OF TECHNOLOGY MONTGOMERY WEST VIRGINIA 25136	IBM 1130	66					

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CTL 1 TYPE 2 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
SAN FRANCISCO STATE COL SAN FRANCISCO CALIFORNIA	94132	IBM 1620	63			*		400
FLORIDA ATLANTIC UNIVERSITY BOCA RATON FLORIDA	33432	IBM 1460 IBM 360/40	64 67	X	*			300
NTHEST LOUISIANA ST COL MONROE LOUISIANA	71201	IBM 1620 IBM 1130 IBM 1401	63 66 67	X	*			10
STHESTRN LOUISIANA COL HAMMOND LOUISIANA	70402	IBM 1620	65			*		160
UNIVERSITY SOUTHWESTERN LA. LAFAYETTE, LOUISIANA	70501	IBM 1620 RCA 70/45	61 67	X		*		450
MORGAN STATE COLLEGE BALTIMORE MARYLAND	21212	IBM 1620 HON 1200	65 67					
CENTRAL MICHIGAN UNIVERSITY MOUNT PLEASANT MICHIGAN	48858	IBM 1620 IBM 1401	63 67	X	*			100
EASTERN MICHIGAN UNIVERSITY YPSILANTI, MICHIGAN	48197	IBM 1620 IBM 360/30	64 68	X	*			140
WESTERN MICHIGAN UNIVERSITY KALAMAZOO MICHIGAN	49001	IBM 1620 IBM 360/50	62 68	X			*	
CUNY BROOKLYN COLLEGE BROOKLYN NEW YORK	11210	IBM 1620 IBM 1620II IBM 360/40	60 64 68	X	*			150 160
WINTHROP COLLEGE ROCK HILL SOUTH CAROLINA	29730	IBM 1620	64			*		85
SAM HOUSTON STATE COLLEGE HUNTSVILLE TEXAS	77340	IBM 1620	63			*		179

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CTL 1 TYPE 2 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
TEXAS COL ARTS INDUSTRIES		IBM 1620	61				*	200
KINGSVILLE TEXAS	78363	IBM 360/40	68					
OLD DOMINION COLLEGE		IBM 1620	64			*		105
NORFOLK VIRGINIA	23508							

CTL 1 TYPE 2 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
GEORGIA STATE COLLEGE		IBM 7040	65		*			100
ATLANTA GEORGIA	30303	IBM 1620	62	X	*			375
UNIV. OF SOUTHERN MISSISSIPPI		IBM 1620	64		*			80
HATTIESBURG, MISSISSIPPI	39401							
SUNY STATE UNIV BINGHAMTN		IBM 1460	66		*			190
BINGHAMTUN NEW YORK	13901	IBM 1130	66		*			120
SUNY AT ALBANY		CDC 3100	66		*			250
ALBANY NEW YORK	12203	IBM 1620	66	X		*		100
		MUN XI	66	X	*			100
		CDC 3300	67					
NORTH CARULINA COLLEGE		IBM 1620	62			*		160
DURHAM, NORTH CAROLINA	27707							
COLLEGE OF WILLIAM & MARY		IBM 1620	64	X	*			300
WILLIAMSBURG VIRGINIA	23185	IBM 360/50	67					

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CTL 1 TYPE 2 LEVEL 5

INSTITUTION	COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
PORTLAND STATE COLLEGE PORTLAND OREGON 97207	IBM 1620	63			*		350

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CTL 1 TYPE 4 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
ILL TCHRS COL CHICAGO SOUTH		IBM 1401	67					
CHICAGO ILLINOIS	60621							
EASTERN KENTUCKY UNIVERSITY		HON 200	66					
RICHMOND, KENTUCKY	40476							
MOREHEAD STATE COLLEGE		HON 200	66					
MOREHEAD KENTUCKY	40351							
ST CLOUD STATE COLLEGE		IBM 1620	64			*		100
ST CLOUD MINNESOTA	56301	IBM 1401	67					
WINONA STATE COLLEGE		IBM 1130	67					
WINONA MINNESOTA	55987							
JACKSON STATE COLLEGE		IBM 1620	61	X	*			150
JACKSON MISSISSIPPI	39217	IBM 1130	67					
CENTRAL MISSOURI ST COLLEGE		IBM 1620	62			*		100
WARRENSBURG MISSOURI	64093	IBM 1440	65		*			80
NORTHEAST MISSOURI S T C		IBM 1440	66					
KIRKSVILLE MISSOURI	63501							
KEARNEY STATE COLLEGE		IBM 1130	66					
KEARNEY NEBRASKA	68847							
TRENTON STATE COLLEGE		IBM 1130	67					
TRENTON NEW JERSEY	08625							
NEW MEXICO HIGHLANDS UNIV		IBM 1620	60			*		170
LAS VEGAS NEW MEXICO	87701							
SUNY COLLEGE NEW PALTZ		IBM 1401	68					
NEW PALTZ NEW YORK	12561	IBM 360/50	69					
APPALACHIAN STATE TCHRS COL.		IBM 1620	63		*			120
BOONE NORTH CAROLINA	28607							
WESTERN CAROLINA COLLEGE		IBM 1620	63	X	*			240
CULLOWHEE, NORTH CAROLINA	28723	IBM 1401	67					
SHIPPENSBURG STATE COLLEGE		IBM 1620	63		*			300

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CTL 1 TYPE 4 LEVEL 3

INSTITUTION	COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
SHIPPENSBURG PENNSYLVANIA 17257							
WEST CHESTER STATE COLLEGE WEST CHESTER PENNSYLVANIA 19380	IBM 1620	64			*		100

CTL 1 TYPE 4 LEVEL 4

INSTITUTION	COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
ILLINOIS STATE UNIVERSITY NORMAL ILLINOIS 61761	IBM 1620 IBM 1401	63 67			*		100
BALL STATE UNIVERSITY MUNCIE INDIANA 47306	IBM 1620 IBM 360/40	63 68		X	*		120
INDIANA STATE UNIVERSITY TERRE HAUTE INDIANA 47809	IBM 1620 IBM 360/30	63 67		X	*		300
EAST TEXAS STATE UNIV COMMERCE TEXAS 75429	IBM 1620 IBM 1401	63 66		X	*		200

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CTL 1 TYPE 5 LEVEL 2

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
SUNY MARITIME COLLEGE		CDC LGP 30	00			*		
NEW YORK NEW YORK	10465	IBM 1130	67					
		IBM 1620	66					
CITADEL MILITARY COL OF S C		IBM 1620	64		*			150
CHARLESTON SOUTH CAROLINA	29409							
VIRGINIA MILITARY INSTITUTE		IBM 1620	63			*		176
LEXINGTON VIRGINIA	24450							

CTL 1 TYPE 5 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
CALIFORNIA STATE POLY COL		IBM 1620	63		*			150
S LUIS OBISPO CALIFORNIA	93401	CDC G-15	60			*		81
CAL ST POLY KELLO VOHRS		IBM 1620	63		*			80
POMONA CALIFORNIA	91766							
SOUTHEASTERN MASS TECH INST		BUR 205	59			*		100
N DARTMOUTH MASSACHUSETTS	02747	MIT	66					
MONTANA COL MINERAL SCI & TECH		IBM 1620	64			*		140
BUTTE MONTANA	59701							
S DAK SCH MINES & TECH		IBM 1620	61				*	
RAPID CITY SOUTH DAKOTA	57701							
UNIV OF TEXAS AT EL PASO		CDC G-15	60	X			*	200
EL PASO TEXAS	78712	CDC 3100	67					

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CTL 1 TYPE 5 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
COLORADO SCHOOL OF MINES		CDC LGP 30	60			*		40
GOLDEN COLORADO	80401	CDC 8090	64		*			200
GEORGIA INSTITUTE OF TECH		BUR 220	58	X		*		150
ATLANTA GEORGIA	30332	BUR 5500	64			*		300
		BUR 5500TS	66					
		UNI 1108II	67					
LOWELL TECHNOLOGICAL INST		IBM 1620	62			*		180
LOWELL MASSACHUSETTS	01854							
NEWARK COL OF ENGINEERING		IBM 1620	61				*	
NEWARK NEW JERSEY	07102	IBM 1620II	65		*			
NEW MEXICO INST MINING & TECH		IBM 360/40	66					
SOCORRO NEW MEXICO	87801	IBM 360/44	66					
SUNY STATE U STONY BRK		IBM 7040	64	X	*			260
STONY BROOK NEW YORK	11790	IBM 1401	64	X	*			260
		IBM 360/30	67					
		IBM 1500	67					
		IBM 360/30	67					

CTL 1 TYPE 7 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
RICHMOND PROF. INSTITUTE		IBM 1620	65	X		*		75
RICHMOND, VIRGINIA	23220	HON 200	67					

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CTL 1 TYPE 7 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
MEDICAL COLLEGE OF GEORGIA		IBM 1620	64	X	*			150
AUGUSTA GEORGIA	30902	IBM 360/30	66					
SUNY COLLEGE OF FORESTRY		IBM 1620II	64		*			300
SYRACUSE NEW YORK	13210							
SUNY DOWNSTATE MED CTR		IBM 1620II	63		*			176
BROOKLYN NEW YORK	11203	IBM 1410	65		*			176
		IBM 1440	65		*			176
SUNY UPSTATE MEDICAL CENTER		IBM 1620	63		*			368
SYRACUSE, NEW YORK	13210	IBM 360/40	68					
		CDC 160A	67					
MEDICAL COL OF VIRGINIA		CDC RP4000	61			*		172
RICHMOND VIRGINIA	23219	IBM 1130	67					

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CTL 1 TYPE 8 LEVEL 1

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
GADSDEN TECH STATE JR COL GADSDEN ALABAMA	35904	IBM 1130	66					
CHAFFEY COLLEGE ALTA LOMA CALIFORNIA	91701	IBM 1401	67					
COLLEGE OF SAN MATEO SAN MATEO CALIFORNIA	94402	IBM 1620	63			*		200
EAST LOS ANGELES COLLEGE LOS ANGELES, CALIFORNIA	90022	IBM 1620	61			*		70
EL CAMINO COLLEGE EL CAMINO COL CALIFORNIA	90506	IBM 1620	64		*			
FULLERTON JR. COLLEGE FULLERTON, CALIFORNIA	92632	IBM 1620	62		*			200
LOS ANGELES HARBOR COLLEGE		IBM 1620	63			*		140
WILMINGTON CALIFORNIA	90744	IBM 360/30	66					
VICTOR VALLEY COLLEGE VICTORVILLE, CALIFORNIA	92392	IBM 1440	66					
LAMAR JR COLLEGE LAMAR COLORADO	81052	IBM 1401	66					
MESA COUNTY JR COLLEGE		IBM 1620	63	X	*			150
GRAND JUNCTION COLORADO	81501	IBM 1401	67					
ELGIN COMMUNITY COLLEGE ELGIN ILLINOIS	60120	IBM 1401	67					
KANSAS CITY KANSAS JUNIOR COL		IBM 1401	65	X	*			
KANSAS CITY KANSAS	66101	IBM 360/20	66					
BALTIMORE JUNIOR COLLEGE BALTIMORE MARYLAND	21215	IBM 1620	66				*	75
GRAND RAPIDS JUNIOR COLLEGE GR		IBM 1620	64			*		90

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CTL 1 TYPE 8 LEVEL 1

INSTITUTION	COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
GRAND RAPIDS MICHIGAN 49502							
ITAWAMBA JR. COLLEGE VOC.TECH.	IBM 360/20	67					
TUPELO, MISSISSIPI 38843							
NTHWST MISSISSIPPI JR COLLEGE	IBM 1620	66					
SENATOBIA MISSISSIPPI 38668	IBM 360/20	67					
MISSOURI SOUTHERN COLLEGE	IBM 1130	67					
JOPLIN MISSOURI 64801							
AUBURN COMMUNITY COLLEGE	IBM 1440	66					
AUBURN NEW YORK 13021	IBM 1401	66					
BROOME TECH COMMUNITY COLLEGE	IBM 1620	63	X	*			175
BINGHAMTON NEW YORK 13902	IBM 1130	67					
CUYAHOGA COMMUNITY COLLEGE	IBM 1401	66					
CLEVELAND OHIO 44115	HON 1200	66					
LORAIN CO CMTY COLLEGE	IBM 1440	65			*		
LORAIN OHIO 44052							
ODESSA COLLEGE	IBM 360/20	67					
ODESSA TEXAS 79760							
WHARTON COUNTY JUNIOR COLLEGE	IBM 1620	63	X	*			160
WHARTON TEXAS 77488	IBM 1401	67					
CENTRALIA COLLEGE	IBM 1620	62			*		175
CENTRALIA WASHINGTON 98531	IBM 360/30	69					
COLUMBIA BASIN COLLEGE	IBM 1620	62		*			160
PASCO WASHINGTON 99301							

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CTL 1 TYPE 9 LEVEL 1

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
THAMES VLY ST TECH INST NORWICH CONNECTICUT	06360	IBM 1620	63			*		200
UNION COUNTY TECH INST MOUNTAINSIDE NEW JERSEY	07092	IBM 1620	62			*		130
WESTCHESTER COMMUNITY COLLEGE VALHALLA NEW YORK	10595	BUR 204	64			*		64

CTL 2 TYPE 1 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
BRADLEY UNIVERSITY PEORIA ILLINOIS	61606	IBM 1620	63		*			500
DEPAUL UNIVERSITY CHICAGO ILLINOIS	60604	IBM 1401	65		*			85
DRAKE UNIVERSITY DES MOINES, IOWA	50311	CDC LGP 30 UNI SS80	64 67			*		80
LOYOLA UNIVERSITY NEW ORLEANS LOUISIANA	70118	IBM 1620	63			*		60
CREIGHTON UNIVERSITY OMAHA NEBRASKA	68131	IBM 1130	66					
SETON HALL UNIVERSITY SOUTH ORANGE NEW JERSEY	07079	IBM 1620	63			*		100
PRATT INSTITUTE BROOKLYN NEW YORK	11205	IBM 1620	61		*			100
VILLANOVA UNIVERSITY VILLANOVA PENNSYLVANIA	19085	IBM 1620 IBM 1130	60 66				*	250

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
STANFORD UNIVERSITY		IBM 7090	62	X		*		339
STANFORD, CALIFORNIA	94305	IBM 1401	62	X		*		339
		BUR 5500	64	X		*		401
		IBM 1401	63	X	*			200
		PDP 1	63			*		320
		PDP LINC	65			*		200
		PDP LINC	65			*		300
		PDP 8	65			*		200
		IBM 1620	62		*			58
		IBM 1620	62			*		120
		IBM 1620	63		*			650
		PDP 7	65			*		500
		IBM 360/67	67					
		IBM 1800	66					
		PDP 8	66					
		IBM 360/50	66					
STANFURD LINEAR ACC. CENTER		SDS 925	65					
STANFURD, CALIFORNIA	94305	IBM 360/75	67					
		SDS 9300	65					
		ASI 6020	67					
UNIV OF SOUTHERN CALIFORNIA		HON 800	61			*		250
LOS ANGELE CALIFORNIA	90007	HON 400	63			*		150
		HON 200	65			*		
UNIV OF SOUTHERN CALIFORNIA		IBM 1620	64	X		*		400
LOS ANGELE CALIFORNIA	90007	BEK 420	65			*		
		IBM 360/44	67					
UNIV OF SOUTHERN CALIFORNIA		CDC LGP 30	60			*		80
LOS ANGELE CALIFORNIA	90007	IBM 1401	62		*			210
UNIVERSITY OF DENVER		BUR 205	58	X		*		330
DENVER COLORADO	80210	BUR 5500	64			*		63
		BUR 5500TS	66					

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CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
YALE UNIVERSITY		IBM 1401	61	X		*		150
NEW HAVEN CONNECTICUT	06520	IBM 7094	64	X			*	190
		IBM 7040	64	X			*	190
		IBM 360/30	67					
		IBM 360/67	68					
		IBM 360/20	68					
AMERICAN UNIVERSITY		CDC LGP 30	60		*			14
WASHINGTON D C	20016	IBM 1401	63		*			
GEORGETOWN UNIVERSITY		IBM 1620II	64	X	*			300
WASHINGTON D C	20007	IBM 360/40	67					
GEORGE WASHINGTON UNIVERSITY		IBM 7080	62		*			450
WASHINGTON D C	20006	IBM 1620	61	X	*			100
		IBM 1401	61	X	*			350
		CDC 160A	62		*			70
		IBM 1620II	64	X	*			135
		IBM 1401	63	X	*			236
		RCA FLACII	59			*		10
		IBM 360/30	65		*			
		IBM 360/40	66					
		SDS 910	66					
		GEC 425	66					
		CDC 8090	66					
HOWARD UNIVERSITY		IBM 1620	62				*	
WASHINGTON D C	20001	IBM 1130	66					
		IBM 360/30	66					
UNIVERSITY OF MIAMI		IBM 1620	61	X	*			63
CURAL GABLES FLORIDA	33124	IBM 1401	65	X	*			128
		IBM 7040	05	X	*			158
		IBM 1401	63	X	*			88
		IBM 1620	63	X	*			
		IBM 1401	64		*			120

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CTL ? TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
		IBM 360/50	67					
EMORY UNIVERSITY		IBM 1410	65	X	*			175
ATLANTA GEORGIA	30322	CDC HP4000	64			*		175
		IBM 1620	64			*		200
		IBM 1620	65			*		105
		CDC LGP 30	60			*		150
		IBM 360/40	67					
NORTHWESTERN UNIVERSITY		CDC 3400	64		*			273
EVANSTON, ILLINOIS	60201	IBM 709	61			*		278
UNIVERSITY OF CHICAGO		IBM 7094	63		*			471
CHICAGO, ILLINOIS	60637	IBM 7040	64		*			471
		MAN IACIII	61			*		103
		IBM 1620	61		*			198
		IBM 1401	63	X	*			175
		UNI 1004	64	X	*			103
		ASI 6020	65	X			*	720
		ASI 6040	66					
		PDP 8	66					
		IBM 360/30	66					
		PDP 8	66					
UNIVERSITY OF NOTRE DAME		UNI 1107	63			*		300
NOTRE DAME, INDIANA	46556							
TULANE UNIV OF LOUISIANA		IBM 7044	65				*	220
NEW ORLEANS LOUISIANA	70112	IBM 1410	62				*	280
		IBM 1410	63		*			220
		IBM 1401	62				*	165
JOHNS HOPKINS UNIVERSITY		IBM 1401	63		*			250
BALTIMORE MARYLAND	21218	IBM 7094	61	X	*			60
		IBM 7094	66					

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
BOSTON UNIVERSITY BOSTON MASSACHUSETTS	02215	IBM 1620II	64	X	*			125
		IBM 360/40	67					
BRANDEIS UNIVERSITY WALTHAM, MASSACHUSETTS	02154	IBM 1620	63		*			100
HARVARD UNIVERSITY CAMBRIDGE MASSACHUSETTS	02138	IBM 7094	62		*			330
		IBM 1401	62		*			330
		IBM 1401	62		*			330
		IBM 1401	63		*			330
		IBM 7094	66					
		IBM 360/50	66					
		SDS 940	66					
		IBM 1401	66					
MASS INST OF TECHNOLOGY		PDP 1	57				*	300
CAMBRIDGE MASSACHUSETTS	02139	MIT TXO	57				*	300
		IBM 1620	61	X	*			350
		IBM 1620	62		*			350
		IBM 1620	63		*			350
		IBM 7094	63	X	*			400
		IBM 1401	63	X	*			400
		IBM 7094	63	X	*			500
		IBM 7044	64		*			400
		IBM 7040	64	X	*			350
		PDP 7	63		*			500
		IBM 1401	64		*			400
		IBM 360/65	66					
		GEC 645	66					
		IBM 360/40	65					
		IBM 360/67	67					
NORTHEASTERN UNIVERSITY BOSTON MASSACHUSETTS	02115	IBM 1620	63	X	*			180
		CDC 3300	67					
TUFTS UNIVERSITY		IBM 1620	62				*	260

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CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
MEDFORD MASSACHUSETTS	02155							
UNIVERSITY OF DETROIT		IBM 1410	64		*			176
DETROIT MICHIGAN	48221							
ST LOUIS UNIVERSITY		IBM 1620	61	X		*		650
ST LOUIS MISSOURI	63103	IBM 360/50	67					
WASHINGTON UNIVERSITY		IBM 7072	62			*		300
ST LOUIS MISSOURI	63130	IBM 1401	62			*		300
		IBM 1401	64		*			300
		IBM 1710	63		*			352
		PDP 5	65				*	176
		IBM 360/50	66					
PRINCETON UNIVERSITY		CDC 1604	60			*		85
PRINCETON NEW JERSEY	08540	IBM 1620	62	X	*			540
		IBM 1620	62		*			310
		IBM 7094	62				*	600
		IBM 1410	62				*	250
		IBM 7044	66					
		IBM 360/50	66					
ADELPHI UNIVERSITY		REC OMPIII	62			*		170
GARDEN CITY NEW YORK	11530	CDC 3300	67					
COLUMBIA UNIV ALL CAMPUSES		IBM 7094	63			*		400
NEW YORK NEW YORK	10027	IBM 7040	65	X	*			400
		IBM 1410	64	X			*	300
		IBM 1401	63			*		500
		GEC 235	64	X	*			250
		BUR 220	62			*		200
		IBM 1620II	63	X	*			200
		IBM 1620II	63	X	*			400
		IBM 1401	64	X	*			200
		PDP 4	64			*		200

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CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
		IBM 360/50	67					
		IBM 360/75	67					
		IBM 360/91	69					
		IBM 360/44	67					
CORNELL UNIVERSITY		CDC 1604	62	X		*		500
ITHACA NEW YORK	14850	CDC 160A	62	X		*		500
		IBM 360/67	67					
		IBM 360/40	66					
FORDHAM UNIVERSITY		IBM 1620II	65	X	*			200
NEW YORK NEW YORK	10458	IBM 360/40	67					
NEW YORK UNIVERSITY		CDC 6600	65		*			325
NEW YORK NEW YORK	10003	CDC 1604	61				*	220
		IBM 360/30	65		*			600
		IBM 1620	65	X	*			540
		CDC 160A	65			*		176
		PDP 5	64			*		120
		PDP 7	65			*		120
		IBM 360/30	66					
		SDS 930	66					
RENSSELAER POLY INSTITUTE		IBM 1410	62	X	*			200
TROY NEW YORK	12181	IBM 650	64			*		175
		IBM 360/50	66					
UNIVERSITY OF ROCHESTER		IBM 7074	61				*	150
ROCHESTER NEW YORK	14627	IBM 1401	63				*	150
		IBM 1620	62		*			280
		IBM 360/50	67					
		IBM 360/65	68					
NYS COLLEGE OF AGR AT CORNELL		IBM 1410	62	X	*			440
ITHACA NEW YORK	14850	IBM 1401	63	X	*			266
		IBM 360/40	66					

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CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
SUNY IND LABR REL CORNL ITHACA NEW YORK	14850	COR	00					
DUKE UNIVERSITY DURHAM NORTH CAROLINA	27706	IBM 7072	62	X	*			360
		IBM 1401	62	X	*			360
		IBM 360/30	66					
		TUC 1/3	66					
WAKE FOREST COLLEGE WINSTON-SALEM N CAROLINA	27106	IBM 1620	63			*		190
WESTERN RESERVE UNIVERSITY		GEC 225	61			*		200
CLEVELAND, OHIO	44106	IBM 1710	63			*		159
THE UNIVERSITY OF TULSA TULSA OKLAHOMA	74104	IBM 1620	63				*	175
UNIVERSITY OF PORTLAND		BUR 205	64	X		*		12
PORTLAND OREGON	97203	HON 1200	67					
CARNEGIE INST TECHNOLOGY		CDC G-15	58			*		
PITTSBURGH PENNSYLVANIA	15212	CDC G-20	61	X		*		
		CDC G-21	63			*		600
		IBM 1401	63		*			500
		IBM 7040	63		*			525
		CDC G-20	64					
		RCA 301	65		*			
		UNI 1004	66		*			
		IBM 360/67	66					
DUQUESNE UNIVERSITY		IBM 1620	63	X	*			
PITTSBURGH PENNSYLVANIA	15219	CDC G-20	66					
TEMPLE UNIVERSITY		IBM 1620	00	X	*			350
PHILADELPHIA, PA.	19122	IBM 1460	00	X	*			450

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CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
		CDC 6400	67					
		LIN C8	67					
UNIVERSITY OF PENNSYLVANIA		IBM 7040	64				*	600
PHILADELPHIA PENNSYLVANIA	19104	IBM 7040	65					
UNIVERSITY OF PITTSBURGH		IBM 7090	64				*	420
PITISBURGH, PENNSYLVANIA	15213	IBM 1401	64				*	420
		IBM 7070	61				*	167
		IBM 1401	61				*	167
		PDP 4	65			*		167
		IBM 360/50	66					
UNIVERSITY OF PITTSBURGH		IBM 1620	62		*			300
PITISBURGH, PENNSYLVANIA	15213							
UNIVERSITY OF PITTSBURGH		IBM 1410	62		*			552
PITTSBURGH, PENNSYLVANIA	15213	IBM 360/40	67					
		CDC 8092	66					
VANDERBILT UNIVERSITY		IBM 7072	63			*		70
NASHVILLE TENNESSEE	37203	IBM 1401	63			*		100
BAYLOR UNIVERSITY		IBM 1620	63			*		180
WACO TEXAS	76706							
RICE UNIVERSITY		IBM 7040	65	X	*			200
HOUSTON TEXAS	77001	IBM 1620	61			*		250
		IBM 1401	63	X	*			450
		RIC E	61			*		350
		IBM 1800	66					
		IBM 360/50	68					
SOUTHERN METHODIST UNIVERSITY		CDC 3400	65		*			11
DALLAS TEXAS	75222	UNI 1004	65		*			10
		CDC 1604	00		*			240

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CTL 2 TYPE 1 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
		IBM 1130	67					
		SDS 925	66					
TEXAS CHRISTIAN UNIVERSITY		IBM 1620	61			*		150
FORT WORTH TEXAS	76129	IBM 1401	64			*		120
		IBM 360/65	68					
		IBM 1800	67					
		IBM 360/20	67					
		IBM 1500	67					
MARQUETTE UNIVERSITY		IBM 1620	61		*			478
MILWAUKEE WISCONSIN	53233	IBM 7040	65				*	243

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CTL 2 TYPE 2 LEVEL 2

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
BIRMINGHAM SOUTHERN COLLEGE BIRMINGHAM ALABAMA	35204	BUR 205	64			*		172
HARVEY MUDD COLLEGE CLAREMONT CALIFORNIA	91711	IBM 1620	61			*		200
AUGUSTANA COLLEGE ROCK ISLAND ILLINOIS	61202	IBM 1130	66					
WABASH COLLEGE CRAWFORDSVILLE INDIANA	47933	IBM 1620	63			*		120
CENTRE COL OF KENTUCKY DANVILLE KENTUCKY	40422	TSH FS1440	00					
AUGSBURG COLLEGE MINNEAPOLIS MINNESOTA	55404	BUR 101E	00					
LINDENWOOD COLLEGE ST CHARLES MISSOURI	63301	MCD	00					
NEBRASKA WESLEYAN UNIVERSITY LINCOLN NEBRASKA	68504	IBM 1620	63			*		125
ST PETERS COLLEGE		CDC LGP 30	00			*		
JERSEY CITY NEW JERSEY	07306	IBM 1401	67					
MOUNT UNION COLLEGE		IBM 1620	67					
ALLIANCE OHIO	44601	IBM 360/44	68					
JUNIATA COLLEGE HUNTINGDON PENNSYLVANIA	16653	IBM 1620	64			*		400
LASALLE COLLEGE PHILADELPHIA, PENNSYLVANIA	19141	IBM 1620	64		*			100
WEST VIRGINIA WESLEYAN COLLEGE BUCKHANNON WEST VIRGINIA	26201	BUR 205	64			*		10

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CTL 2 TYPE 2 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
MOUNT ST MARYS COLLEGE		WDP	00					
LOS ANGELES CALIFORNIA	90049							
UNIVERSITY OF REDLANDS		IBM 1130	67					
REDLANDS CALIFORNIA	90723							
TRINITY COLLEGE		PDP 8	66					
HARTFORD CONNECTICUT	06106							
GALLAUDET COLLEGE		IBM 1620	62	X		*		150
WASHINGTON D C	20002	IBM 360/30	67					
WHEATON COLLEGE		IBM 1620	63		*			30
WHEATON ILLINOIS	60187							
VALPARAISO UNIVERSITY		IBM 1620	61		*			30
VALPARAISO INDIANA	46383							
AMHERST COLLEGE		IBM 1401	67					
AMHERST MASSACHUSETTS	01002	IBM 1130	66					
EMMANUEL COLLEGE		MIT	00					1
BOSTON, MASSACHUSETTS	02115							
ST JOHNS UNIVERSITY		IBM 1620	63			*		300
COLLEGEVILLE MINNESOTA	56321							
DRURY COLLEGE		CDC LGP 30	60			*		59
SPRINGFIELD MISSOURI	65802							
COLGATE UNIVERSITY		IBM 1620	63				*	125
HAMILTON NEW YORK	13346							
LONG ISLAND UNIVERSITY		IBM 1620	60		*			90
BROOKVILLE LONG ISLAND N Y	11548	IBM 1620	64		*			90
JOHN CARROLL UNIVERSITY		CDC LGP 30	61	X		*		200
CLEVELAND OHIO	44118	GEC 215	66					

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CTL 2 TYPE 2 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
OBERLIN COLLEGE		IBM 1620	64	X	*			50
OBERLIN, OHIO	44074	IBM 360/30	67					
UNIVERSITY OF DAYTON		NCR 304	61			*		300
DAYTON OHIO	45409	BUR 220	60			*		150
XAVIER UNIVERSITY		IBM 1620	65		*			180
CINCINNATI OHIO	45207							
LINFIELD COLLEGE		IBM 1620	66					
MCMINNVILLE OREGON	97128							
REED COLLEGE		IBM 1620	65	X	*			300
PORTLAND OREGON	97202	IBM 1130	66					
FRANKLIN & MARSHALL COLLEGE		BUR 205	64	X		*		100
LANCASTER PENNSYLVANIA	17604	IBM 1130	67					
ST FRANCIS COLLEGE		IBM 1130	67					
LORETTO PENNSYLVANIA	15940							
ST JOSEPHS COLLEGE		IBM 1620	64		*			72
PHILADELPHIA PENNSYLVANIA	19131							
AUGUSTANA COLLEGE		IBM 1130	66					
SIOUX FALLS SOUTH DAKOTA	57102							
UNIVERSITY OF CHATTANOOGA		IBM 1620	63		*			176
CHATTANOOGA TENNESSEE	37403							
ST MARYS UNIVERSITY		IBM 1620	62			*		50
SAN ANTONIO TEXAS	78228	IBM 1401	67					

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INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
OCCIDENTAL COLLEGE		IBM 1620	64				*	200
LOS ANGELES CALIFORNIA	90041							
UNIV OF SANTA CLARA		IBM 1620	63		*			180
SANTA CLARA CALIFORNIA	95053	TSH SDS940	66					
WESLEYAN UNIVERSITY		IBM 1620	61				*	156
MIDDLETOWN CONNECTICUT	06457							
ATLANTA UNIVERSITY CENTER		GEC 235TER	66	X	*			25
ATLANTA, GEORGIA	30314	IBM 1130	67					
SMITH COLLEGE		IBM 1130	67					
NORTHAMPTON MASSACHUSETTS	01060							
DARTMOUTH COLLEGE		GEC 265	64	X		*		
HANOVER NEW HAMPSHIRE	03755	IBM 1620	00		*			
		GEC 625	66					
ALFRED UNIVERSITY		IBM 1620	63		*			330
ALFRED NEW YORK	14802							
NEW SCH FOR SOC RESEARCH		IBM 1130	67					
NEW YORK NEW YORK	10011							
ST BONAVENTURE UNIVERSITY		IBM 1620	63			*		100
ST BONAVENTURE NEW YORK	14778							
BRYN MAWR COLLEGE		IBM 1620	61			*		88
BRYN MAWR PENNSYLVANIA	19010							
LEHIGH UNIVERSITY		GEC 225	63				*	200
BETHLEHEM PENNSYLVANIA	18015	IBM 1620	62	X	*			100
		CDC LGP 30	57			*		50
		IBM 1130	66					
		GEC DNET15	66					
BROWN UNIVERSITY		IBM 7070	60	X		*		200

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CTL 2 TYPE 2 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
PROVIDENCE RHODE ISLAND	02912	IBM 1401	62	X	*			200
		IBM 360/50	66					
PROVIDENCE COLLEGE		IBM 1401	62		*			160
PROVIDENCE, RHODE ISLAND	02908	IBM 1620	62		*			200
LAWRENCE UNIVERSITY		IBM 1620	64	X	*			165
APPLETON WISCONSIN	54911	IBM 360/40	68					

CTL 2 TYPE 4 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
CONCORDIA TEACHERS COLLEGE		IBM 1401	64		*			120
RIVER FOREST ILLINOIS	60305							

CTL 2 TYPE 5 LEVEL 2

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
INDIANA INSTITUTE OF TECH		IBM 1620	61		*			151
FORT WAYNE INDIANA	46803							
TRI-STATE COLLEGE		IBM 1620	63			*		250
ANGULA INDIANA	46703							

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CTL 2 TYPE 5 LEVEL 3

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
ROSE POLYTECHNIC INSTITUTE		CDC G-15	60	X		*		300
TERRE HAUTE, INDIANA	47803	IBM 1130	66					
ROCHESTER INST TECHNOLOGY		IBM 1620	63				*	170
ROCHESTER NEW YORK	14608							
INST TEXTILE TECHNOLOGY		IBM 1620	64	X	*			80
CHARLOTTESVILLE VIRGINIA	22901	IBM 1130	66					

CTL 2 TYPE 5 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
ILLINOIS INST OF TECH		IBM 7040	64		*			300
CHICAGO ILLINOIS	60616							
WORCESTER POLY INSTITUTE		IBM 1620	61		*			350
WORCESTER MASSACHUSETTS	01609	PDP 7	66					
STEVENS INSTITUTE OF TECH		IBM 1620	61	X		*		250
HOBOKEN NEW JERSEY	07030	UNI 1105	63	X	*			83
		IBM 360/40	67					
CLARKSON COLLEGE OF TECH		IBM 1620	61	X		*		540
POTSDAM NEW YORK	13676	IBM 360/44	67					
CASE INSTITUTE OF TECHNOLOGY		UNI 1107	63			*		230
CLEVELAND, OHIO	44106							
DREXEL INST OF TECHNOLOGY		IBM 1620	61		*			280
PHILADELPHIA PENNSYLVANIA	19104							

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 2 TYPE 7 LEVEL 2

INSTITUTION	COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
DETROIT INST OF TECHNOLOGY DETROIT MICHIGAN 48201	IBM 1620	65			*		203
PHILA COL OF TEX & SCI PHILADELPHIA PENNSYLVANIA 19144	IBM 1130	67					

CTL 2 TYPE 7 LEVEL 3

INSTITUTION	COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
BABSON INST OF BUS ADMIN BABSON PARK MASSACHUSETTS 02157	MIT 7094	00					
WESTERN NEW ENGLAND COLLEGE SPRINGFIELD MASSACHUSETTS 01119	IBM 1620	64		*			
RIDER COLLEGE TRENTON NEW JERSEY 08602	IBM 1130	67					
PACE COLLEGE NEW YORK, NEW YORK 10038	IBM 1620	62		*			100

ITEM I-A-4,5,6 COMPUTERS INSTALLED AND ON ORDER FOR RESEARCH AND INSTRUCTIONAL USES

CTL 2 TYPE 7 LEVEL 4

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
LOMA LINDA UNIVERSITY LOMA LINDA CALIFORNIA	92354	IBM 1620	65			*		175
NEW YORK MEDICAL COLLEGE NEW YORK NEW YORK	10029	IBM.1620	64					775
ALBANY MEDICAL COLLEGE ALBANY NEW YORK	10013	IBM 1620	63		*			176
HAHNEMANN MED COL & HOSP PHILADELPHIA PENNSYLVANIA	19102	IBM 1620	64		*			40
JEFFERSON MED COL OF PHILA PHILADELPHIA PENNSYLVANIA	19107	IBM 1401 IBM 360/30	64 67	X	*			

CTL 2 TYPE 9 LEVEL 1

INSTITUTION		COMPUTER SYST.	YEAR INST	TO BE REPLACED	LEASE	PURCH	BOTH	1964-65 AVG.USE HRS/MO
OHIO COLLEGE OF APP SCIENCE CINCINNATI OHIO	45210	CDC LGP 30 IBM 1620	65 66	X		*		

III. List of Institutions in Sample Offering or Planning to Offer Degree Programs in "Computer Science" (Item I-B of Questionnaire)

Under the major heading, "Computer Science Instruction Programs," the institutions were asked to list degree programs offered in "Computer Science, Information Science, Data Processing, etc.," during 1964-65 and those planned to be offered "in the next three years." Except for the eleven institutions which requested not to be listed this section contains the responses of the institutions in the sample.

The institutions are arranged approximately alphabetically within state within name of academic program (usually department name). The programs were categorized as being in one of four major programs (Computer Science, Information Science, Business Data Processing, and Scientific Data Processing) or in one of twelve options in other academic areas.

A given institution may appear in more than one program list. The numbers of "students trained to use computers" is repeated each time the institution is listed.

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: COMPUTER SCIENCES

INSTITUTION		1964-65				PLANNED				STUDENTS TRAINED TO USE COMPUTERS							
		ASSOC	BACH	MAST	DOCT	ASSOC	BACH	MAST	DOCT	COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
AUBURN UNIVERSITY AUBURN ALABAMA	36830						B					30		400	50	1200	150
UNIVERSITY OF ALABAMA UNIVERSITY ALABAMA	35486						B					95	30	400	65	1100	250
UNIVERSITY OF ALASKA COLLEGE ALASKA	99735					A	B	M				40	10	50	10	100	25
UNIVERSITY OF ARKANSAS FAYETTEVILLE ARKANSAS	72701						B	M						425	20	600	50
CALIFORNIA STATE POLY COL S LUIS OBISPO CALIFORNIA	93401						B					50		800		1200	
STANFORD UNIVERSITY STANFORD, CALIFORNIA	94305			M	D						69		100	600	999	1000	1400
UNIV OF CALIFORNIA AT BERKELEY BERKELEY CALIFORNIA	94720	B								106	78	140	130	4200	999	12000	2500
UNIVERSITY OF CALIFORNIA DAVIS DAVIS CALIFORNIA	95616						B					20	25	300	50	1000	150
UNIV OF CAL AT SANTA BARBARA SANTA BARBARA CALIFORNIA	93106							M	D					15	20	150	75
YALE UNIVERSITY NEW HAVEN CONNECTICUT	06520	B	M	D						12	5	50	20	200	150	800	400
GEORGE WASHINGTON UNIVERSITY WASHINGTON D C	20006						B			5	6	70	20	245	95	720	265
BREVARD ENGINEERING COLLEGE MELBOURNE FLORIDA	32924						B					200		50		200	
UNIVERSITY OF FLORIDA GAINESVILLE FLORIDA	32601						B	M				100	20	2073	351	6700	1100

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NAME OF PROGRAM: COMPUTER SCIENCES

INSTITUTION		1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIVERSITY OF MIAMI CORAL GABLES FLORIDA	33124						B	M									
ATLANTA UNIVERSITY CENTER ATLANTA, GEORGIA	30314						B	M						50	30	200	100
EMORY UNIVERSITY ATLANTA GEORGIA	30322								D	10		20		30	95	65	200
GEORGIA STATE COLLEGE ATLANTA GEORGIA	30303						B	M				100	50	130	30	500	200
UNIVERSITY OF GEORGIA ATHENS GEORGIA	30601							M						20	20	200	50
UNIVERSITY OF HAWAII HONOLULU HAWAII	96822							M						300	200	1200	1500
BRADLEY UNIVERSITY PEORIA ILLINOIS	61606							M				60	100	10	1000	80	
NORTHWESTERN UNIVERSITY EVANSTON, ILLINOIS	60201							M	D		20		40	300	200	500	400
SOUTHERN ILLINOIS UNIV CARBONDALE ILLINOIS	62901							M	D		5		10	250	25	600	40
UNIVERSITY OF ILLINOIS URBANA ILLINOIS	61822							M	D			200	100	2300	999	5400	2550
INDIANA STATE UNIVERSITY TERRE HAUTE INDIANA	47809		B					M			20	12	60	35	10	6	35	20
PURDUE UNIVERSITY LAFAYETTE INDIANA	47907		B	M	D						20	50	100	100	600	300	1400	600
UNIVERSITY OF NOTRE DAME NOTRE DAME, INDIANA	46556						B		D					600			
IOWA ST U OF SCI AND TECH AMES IOWA	50010						B	M	D			100	40	800	300	2500	1000

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NAME OF PROGRAM: COMPUTER SCIENCES

INSTITUTION		1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIVERSITY OF IOWA IOWA CITY IOWA	52240						B	M	D			150	50	615	470	2025	1080
KANSAS ST U AG AND APP SCI MANHATTAN KANSAS	66502						B	M	D			400	50	800	150	1200	250
MOREHEAD STATE COLLEGE MOREHEAD KENTUCKY	40351						B										
UNIVERSITY OF KENTUCKY LEXINGTON KENTUCKY	40604						B					500	100	600	100	2000	300
UNIVERSITY SOUTHWESTERN LA. LAFAYETTE, LOUISIANA	70501			M		A	B				7	200	60	50	5	500	25
UNIVERSITY OF MARYLAND COLLEGE PARK MARYLAND	20742							M					30	700	90	2000	500
MASS INST OF TECHNOLOGY CAMBRIDGE MASSACHUSETTS	02139		B	M	D					100	100	125	150	800	500	900	1500
MICHIGAN STATE UNIVERSITY EAST LANSING MICHIGAN	48824						B	M						600	100	3000	800
WAYNE STATE UNIVERSITY DETROIT MICHIGAN	48202						B	M	D			50	20	1750	200	5000	1000
WESTERN MICHIGAN UNIVERSITY KALAMAZOO MICHIGAN	49001						B	M						200	40	1200	200
UNIVERSITY OF MINNESOTA MINNEAPOLIS MINNESOTA	55455							M	D				50	850	565	5600	1225
WINONA STATE COLLEGE WINONA MINNESOTA	55987						B					30				250	50

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: COMPUTER SCIENCES

INSTITUTION	1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
JACKSON STATE COLLEGE JACKSON MISSISSIPPI 39217						B							90		500	
UNIV. OF SOUTHERN MISSISSIPPI HATTIESBURG, MISSISSIPPI 39401						B					20		200	50	400	100
MISSISSIPPI STATE UNIVERSITY STATE COLLEGE MISSISSIPPI 39762							M					20	1300	40	2800	150
CENTRAL MISSOURI ST COLLEGE WARRENSBURG MISSOURI 64093						B							400	50	800	100
UNIV OF MISSOURI AT COLUMBIA COLUMBIA MISSOURI 65201						B	M				97	30	310	240	800	620
UNIV OF MISSOURI AT ROLLA ROLLA MISSOURI 65401			M			B		D		17	110	90	1500	200	4500	500
WASHINGTON UNIVERSITY ST LOUIS MISSOURI 63130			M	D					75	200	100	400	525	700	1000	1500
UNIVERSITY OF NEBRASKA LINCOLN NEBRASKA 68503						B	M				40	20	100	20	400	50
UNIVERSITY OF NEW HAMPSHIRE DURHAM, NEW HAMPSHIRE 03824							M					20	120	20	1000	100
NEWARK COL OF ENGINEERING NEWARK NEW JERSEY 07102							M					20	400	100	700	200
PRINCETON UNIVERSITY PRINCETON NEW JERSEY 08540		B	M	D						20	40	80	75	1500	650	1750	925
STEVENS INSTITUTE OF TECH HOBOKEN NEW JERSEY 07030			M					D			10		40	1145	50	1300	100
NEW MEXICO INST MINING & TECH SOCORRO NEW MEXICO 87801						B					25				150	40
NEW MEXICO STATE UNIVERSITY UNIVERSITY PARK NEW MEXICO 88070							M				100	50	220	20	1000	200

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NAME OF PROGRAM: COMPUTER SCIENCES

INSTITUTION		1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
COLUMBIA UNIV ALL CAMPUSES NEW YORK NEW YORK	10027		B	M	D						30	50	100	150	635	2000	2000
CORNELL UNIVERSITY ITHACA NEW YORK	14850						B	M	D	20	10	100	70	1000	150	4000	500
PRATT INSTITUTE BROOKLYN NEW YORK	11205						B	M				50	150	350	5	600	250
RENSSELAER POLY INSTITUTE TROY NEW YORK	12181							M	D				30	400	60	2000	250
SUNY AT ALBANY ALBANY NEW YORK	12203					A		M				60	15			1000	100
SUNY DOWNSTATE MED CTR BROOKLYN NEW YORK	11203						B					7					
SUNY STATE UNIV AT BUFFALO BUFFALO NEW YORK	14214						B	M	D			50	30	500	50	5000	750
N C STATE UNIV AT RALEIGH RALEIGH NORTH CAROLINA	27607						B	M				100	10	100	10	5000	500
THE UNIV OF NORTH DAKOTA GRAND FORKS NORTH DAKOTA	58201						B							100	10	300	100
CUYAHOGA COMMUNITY COLLEGE CLEVELAND OHIO	44115					A			10			100					
OHIO COLLEGE OF APP SCIENCE CINCINNATI OHIO	45210					A											
OHIO STATE UNIVERSITY COLUMBUS OHIO	43210						B	M	D			200	50	1830	370	4500	850
UNIVERSITY OF AKRON AKRON OHIO	44304						B					40	20	250	25	1000	150
UNIVERSITY OF DAYTON DAYTON OHIO	45409		B					M		100		240	5	200	15	600	50

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NAME OF PROGRAM: COMPUTER SCIENCES

INSTITUTION		1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS — COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR	OTHERS — AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
OKLA STATE UNIVERSITY STILLWATER OKLAHOMA	74074						B	M				90	40	500	175	1200	250
OREGON STATE UNIVERSITY CORVALLIS OREGON	97331			M	D		B			50	10	250	50	1000	150	3000	300
UNIVERSITY OF OREGON EUGENE, OREGON	97403							M					15	100	80	800	300
CARNEGIE INST TECHNOLOGY PITTSBURGH PENNSYLVANIA	15212				D						30		50	500	80	1000	120
LEHIGH UNIVERSITY BETHLEHEM PENNSYLVANIA	18015						B				5	20	40	500	100	750	150
PENNSYLVANIA STATE UNIVERSITY UNIVERSITY PARK PA	16802			M	D	A	B					50	100				
UNIVERSITY OF PITTSBURGH PITTSBURGH, PENNSYLVANIA	15213							M				70	30	2000	999	4000	2000
UNIVERSITY OF RHODE ISLAND KINGSTON RHODE ISLAND	02881							M	D				20	500	150	850	200
UNIV OF SOUTH CAROLINA COLUMBIA SOUTH CAROLINA	29208						B	M				40	5	300	40	1000	200
WINTHROP COLLEGE ROCK HILL SOUTH CAROLINA	29730						B					40					
VANDERBILT UNIVERSITY NASHVILLE TENNESSEE	37203						B	M	D			75	25	100	25	500	150
TEXAS A & M UNIVERSITY COLLEGE STATION TEXAS	77840			M			B				85	50	150	275	40	500	150
RICE UNIVERSITY HOUSTON TEXAS	77001							M	D				20	182	62	230	115

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NAME OF PROGRAM: COMPUTER SCIENCES

INSTITUTION	1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
SAM HOUSTON STATE COLLEGE HUNTSVILLE TEXAS 77340						B	M						80		360	20
TEXAS CHRISTIAN UNIVERSITY FORT WORTH TEXAS 76129					A	B	M	D			100	20	200	10	3000	400
TEXAS COL ARTS INDUSTRIES KINGSVILLE TEXAS 78363						B			30				250	10	450	20
TEXAS TECHNOLOGICAL COLLEGE LUBBOCK TEXAS 79409							M	D				40	300	100	3000	500
UNIV OF TEXAS AT EL PASO EL PASO TEXAS 79712						B							100		300	
UNIVERSITY OF HOUSTON HOUSTON TEXAS 77004						B	M		25		150	10	1000	500	5000	1000
UTAH STATE UNIVERSITY LOGAN UTAH 84321		B							25		50		300	50	1000	150
UNIVERSITY OF VIRGINIA CHARLOTTESVILLE VIRGINIA 22903			M	D									200	150	1500	600
VIRGINIA POLYTECHNIC INST BLACKSBURG VIRGINIA 24061						B	M				20	5	350	150	1000	300
UNIVERSITY OF WASHINGTON SEATTLE WASHINGTON 98105							M	D				20	1000	500	2000	500
W VIRGINIA INST OF TECHNOLOGY MONTGOMERY WEST VIRGINIA 25136					A								50		175	
UNIVERSITY OF WISCONSIN MADISON, WISCONSIN 53706			M	D		B			31	75	150		350	150	800	350
UNIVERSITY OF WYOMING LARAMIE WYOMING 82070						B							60	10	400	30

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NAME OF PROGRAM: INFORMATION SCIENCES

INSTITUTION	1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG.68-9 UNGR	COMP. SCI. MAJORS PROG.68-9 GR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIV OF CAL AT SAN FRANCISCO SAN FRANCISCO CALIFORNIA 94122							M	D				4		6		30
YALE UNIVERSITY NEW HAVEN CONNECTICUT 06520							M	D	12	5	50	20	200	150	800	400
GEORGIA INSTITUTE OF TECH ATLANTA GEORGIA 30332			M					D		20		50	600	200	1400	600
ILLINOIS INST OF TECH CHICAGO ILLINOIS 60616							M						1000	100	2000	500
UNIVERSITY OF CHICAGO CHICAGO, ILLINOIS 60637							M	D		100		200	20	400	100	800
MASS INST OF TECHNOLOGY CAMBRIDGE MASSACHUSETTS 02139		B	M	D					100	100	125	150	800	500	900	1500
PRINCETON UNIVERSITY PRINCETON NEW JERSEY 08540		B	M	D					20	40	80	75	1500	650	1750	925
CORNELL UNIVERSITY ITHACA NEW YORK 14850			M						20	10	100	70	1000	150	4000	500
UNIV OF N C AT CHAPEL HILL CHAPEL HILL NORTH CAROLINA 27514			M					D		17		50	100	25	400	100
OHIO STATE UNIVERSITY COLUMBUS OHIO 43210							M	D			200	50	1830	370	4500	850
UNIVERSITY OF AKRON AKRON OHIO 44304						B					40	20	250	25	1000	150
UNIVERSITY OF DAYTON DAYTON OHIO 45409			M						100		240	5	200	15	600	50

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NAME OF PROGRAM: INFORMATION SCIENCES

INSTITUTION		1964-65				PLANNED				STUDENTS TRAINED TO USE COMPUTERS							
										COMP. SCI. MAJORS				OTHERS- AT LEAST ONE LANGUAGE			
		ASSOC	BACH	MAST	DOCT	ASSOC	BACH	MAST	DOCT	1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR	1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
WESTERN RESERVE UNIVERSITY CLEVELAND, OHIO	44106			M	D										50		300
LEHIGH UNIVERSITY BETHLEHEM PENNSYLVANIA	18015			M					D	5	20	40		500	100	750	150
UNIVERSITY OF PENNSYLVANIA PHILADELPHIA PENNSYLVANIA	19104			M	D					50		500		175	275	1500	500
UNIV OF TEXAS AT EL PASO EL PASO TEXAS	79712						B							100		300	
WASHINGTON STATE UNIVERSITY PULLMAN WASHINGTON	99163			M					D	12		40		1500	50	2500	75

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS)

NAME OF PROGRAM: BUSINESS DATA PROCESSING

INSTITUTION		1964-65 ASSOC	BACH	MAST	DOCT	* PLANNED ASSOC	BACH	MAST	DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
GADSDEN TECH STATE JR COL GADSDEN ALABAMA	35904					A				106							
UNIVERSITY OF ARIZONA TUCSON ARIZONA	85721			M	D									123	42	350	150
CHAFFEY COLLEGE ALTA LOMA CALIFORNIA	91701					A										250	
COLLEGE OF SAN MATEO SAN MATEO CALIFORNIA	94402	A								73		100		15		40	
EAST LOS ANGELES COLLEGE LOS ANGELES, CALIFORNIA	90022	A								20		40		80		100	
EL CAMINO COLLEGE EL CAMINO COL CALIFORNIA	90506	A												669		800	
FULLERTON JR. COLLEGE FULLERTON, CALIFORNIA	92632	A								140		250		197		300	
PALO VERDE COLLEGE BLYTHE CALIFORNIA	92225					A										40	
STANFORD UNIVERSITY STANFORD, CALIFORNIA	94305			M							69		100	600	999	1000	1400
CAL ST POLY KELLO VOHRS POMONA CALIFORNIA	91766						B							2000		3000	
MESA COUNTY JR COLLEGE GRAND JUNCTION COLORADO	81501	A								10		30		25		50	
SOUTHERN COLORADO STATE COL PUEBLO COLORADO	81005	A	B							15		50		80		200	
THAMES VLY ST TECH INST NORWICH CONNECTICUT	06360	A								25		105		100		300	
ATLANTA UNIVERSITY CENTER ATLANTA, GEORGIA	30314						B							50	30	200	100

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: BUSINESS DATA PROCESSING

INSTITUTION	1964-65 A S S O C	B A C H	M A S T	D O C T	PLANNED A S S O C	B A C H	M A S T	D O C T	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	GR	PROG. 68-9 UNGR	GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	GR	PROG. 68-9 UNGR	GR
ELGIN COMMUNITY COLLEGE ELGIN ILLINOIS 60120					A						20		15		40	
FREEPORT COMMUNITY COLLEGE FREEPORT ILLINOIS 61032					A										30	
VOCATIONAL TECHNICAL INSTITUTE CARBONDALE ILLINOIS 62901	A								12		50					
KANSAS CITY KANSAS JUNIOR COL KANSAS CITY KANSAS 66101	A												15		25	
EASTERN KENTUCKY UNIVERSITY RICHMOND, KENTUCKY 40476					A										75	
MOREHEAD STATE COLLEGE MOREHEAD KENTUCKY 40351					A											
NTHEST LOUISIANA ST COL MONROE LOUISIANA 71201						B				62	20				360	100
BALTIMORE JUNIOR COLLEGE BALTIMORE MARYLAND 21215					A					300					40	
BOSTON UNIVERSITY BOSTON MASSACHUSETTS 02215						B				50		250	75	600	150	
NORTHEASTERN UNIVERSITY BOSTON MASSACHUSETTS 02115	A											1000	100	2500	500	
GRAND RAPIDS JUNIOR COLLEGE GR GRAND RAPIDS MICHIGAN 49502	A								60	100					40	
WAYNE STATE UNIVERSITY DETROIT MICHIGAN 48202			M							50	20	1750	200	5000	1000	

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ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: BUSINESS DATA PROCESSING

INSTITUTION	1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
ITAWAMBA JR. COLLEGE VOC.TECH. TUPELO, MISSISSIPI 38843					A						25				20	
MISSISSIPPI STATE UNIVERSITY STATE COLLEGE MISSISSIPPI 39762						B	M	D				20	1300	40	2800	150
NTHWST MISSISSIPPI JR COLLEGE SENATOBIA MISSISSIPPI 38668					A						30					
CENTRAL MISSOURI ST COLLEGE WARRENSBURG MISSOURI 64093	A												400	50	800	100
MISSOURI SOUTHERN COLLEGE JOPLIN MISSOURI 64801					A										50	
WASHINGTON UNIVERSITY ST LOUIS MISSOURI 63130	A								75	200	100	400	525	700	1000	1500
PRINCETON UNIVERSITY PRINCETON NEW JERSEY 08540		B							20	40	40	75	1500	650	1750	925
NEW MEXICO STATE UNIVERSITY UNIVERSITY PARK NEW MEXICO 88070					A						100	50	220	20	1000	200
AUBURN COMMUNITY COLLEGE AUBURN NEW YORK 13021					A						240				200	
PACE COLLEGE NEW YORK, NEW YORK 10038					A	B					300	30	400		800	90
CUYAHOGA COMMUNITY COLLEGE CLEVELAND OHIO 44115		A							10		100					
LORAIN CO CMTY COLLEGE LORAIN OHIO 44052		A							14		95					
UNIVERSITY OF AKRON AKRON OHIO 44304					A	B					40	20	250	25	1000	150
UNIVERSITY OF TOLEDO TOLEDO OHIO 43606					A								200	25	500	80

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: BUSINESS DATA PROCESSING

INSTITUTION	1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS-AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS-AT LEAST ONE LANGUAGE PROG. 68-9 GR
DREXEL INST OF TECHNOLOGY PHILADELPHIA PENNSYLVANIA 19104		B							10		20		3000		4000	
ODESSA COLLEGE ODESSA TEXAS 79760					A						55		45		45	
WHARTON COUNTY JUNIOR COLLEGE WHARTON TEXAS 77488	A												75	10	150	50
WEBER STATE COLLEGE OGDEN UTAH 84403	A												15		240	
RICHMOND PROF. INSTITUTE RICHMOND, VIRGINIA 23220					A										250	50
CENTRALIA COLLEGE CENTRALIA WASHINGTON 98531						A										
COLUMBIA BASIN COLLEGE PASCO WASHINGTON 99301						A			20	14	30	18				

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ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: SCIENTIFIC DATA PROCESSING

INSTITUTION	1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
COLLEGE OF SAN MATEO SAN MATEO CALIFORNIA 94402					A				73		100		15		40	
VOCATIONAL TECHNICAL INSTITUTE CARBONDALE ILLINOIS 62901					A				12		50					
SUNY UPSTATE MEDICAL CENTER SYRACUSE, NEW YORK 13210					A							5		15	24	30
LORAIN CO CMTY COLLEGE LORAIN OHIO 44052					A				14		95					

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ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: OPTION IN MATHEMATICS

INSTITUTION		1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIVERSITY OF ALABAMA UNIVERSITY ALABAMA	35486						B	M				95	30	400	65	1100	250
UNIVERSITY OF ALASKA COLLEGE ALASKA	99735		B	M								40	10	50	10	100	25
UNIVERSITY OF ARIZONA TUCSON ARIZONA	85721			M	D									123	42	350	150
CAL ST POLY KELLO VOHRS POMONA CALIFORNIA	91766						B							2000		3000	
SOUTHERN COLORADO STATE COL PUEBLO COLORADO	81005		B							15		50		80		200	
WESLEYAN UNIVERSITY MIDDLETOWN CONNECTICUT	06457			M	D					6		8		60	15	150	25
FLORIDA STATE UNIVERSITY TALLAHASSE FLORIDA	32306		B	M										360	40	1500	200
UNIVERSITY OF ILLINOIS URBANA ILLINOIS	61822			M	D		B				200	100		2300	999	5400	2550
BOSTON UNIVERSITY BOSTON MASSACHUSETTS	02215						B				50			250	75	600	150
WASHINGTON UNIVERSITY ST LOUIS MISSOURI	63130		B							75	200	100	400	525	700	1000	1500
NEW YORK UNIVERSITY NEW YORK NEW YORK	10003					A	B	M	D					1650	500	3500	1500

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: OPTION IN MATHEMATICS

INSTITUTION		1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
OHIO STATE UNIVERSITY COLUMBUS OHIO	43210			M	D							200	50	1830	370	4500	850
UNIVERSITY OF OKLAHOMA NORMAN OKLAHOMA	73069		H	M	D					100	26	215	48	400	75	1500	300
BROWN UNIVERSITY PROVIDENCE RHODE ISLAND	02912			M	D		B				3	6	6	10	5	20	12
CLEMSON UNIVERSITY CLEMSON SOUTH CAROLINA	29631		B					M		30		60	10	300	30	2000	100
UNIVERSITY OF TENNESSEE KNOXVILLE TENNESSEE	37916						B	M				60	30	300	100	700	350
EAST TEXAS STATE UNIV COMMERCE TEXAS	75429		B							10		5		40		150	

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ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: OPTION IN ELECTRICAL ENGINEERING

INSTITUTION		1964-65 ASSOC	1964-65 BACH	1964-65 MAST	1964-65 DOCT	PLANNED ASSOC	PLANNED BACH	PLANNED MAST	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
ARIZONA STATE UNIVERSITY TEMPE ARIZONA	85281		B	M	D					14	6	36	33	1181	335	1600	500
UNIVERSITY OF ARKANSAS FAYETTEVILLE ARKANSAS	72701			M										425	20	600	50
UNIV OF CALIFORNIA AT BERKELEY BERKELEY CALIFORNIA	94720		B	M	D					106	78	140	130	4200	999	12000	2500
UNIV OF SOUTHERN CALIFORNIA LOS ANGELE CALIFORNIA	90007		B	M	D					60	50	90	75	30	20	40	40
UNIVERSITY OF CONNECTICUT STORRS CONNECTICUT	06268			M										450	100	1300	400
UNIVERSITY OF ILLINOIS URBANA ILLINOIS	61822			M	D							200	100	2300	999	5400	2550
MASS INST OF TECHNOLOGY CAMBRIDGE MASSACHUSETTS	02139		B	M	D					100	100	125	150	800	500	900	1500
NEW YORK UNIVERSITY NEW YORK NEW YORK	10003						B	M	D					1650	500	3500	1500
UNIVERSITY OF OKLAHOMA NORMAN OKLAHOMA	73069		B	M	D					100	26	215	48	400	75	1500	300
VIRGINIA MILITARY INSTITUTE LEXINGTON VIRGINIA	24450						B							241		300	

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: OPTION IN APPLIED SCIENCE

INSTITUTION	1964-65 ASSOC CHT	PLANNED ASSOC CHT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG.68-9 UNGR	PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
UNIVERSITY OF CALIFORNIA DAVIS DAVIS CALIFORNIA 95616		M D	20	25			300	50	1000	150
SOUTHERN ILLINOIS UNIV CARBONDALE ILLINOIS 62901	M		5		10		250	25	600	40

NAME OF PROGRAM: OPTION IN LINGUISTICS

INSTITUTION	1964-65 ASSOC CHT	PLANNED ASSOC CHT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG.68-9 UNGR	PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
GEORGETOWN UNIVERSITY WASHINGTON D C 20007	M	D					50	60	150	100

NAME OF PROGRAM: OPTION IN SYSTEMS AND COMMUNICATIONS SCIENCE

INSTITUTION	1964-65 ASSOC CHT	PLANNED ASSOC CHT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	1964-65 GR	PROG.68-9 UNGR	PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	1964-65 GR	PROG. 68-9 UNGR	PROG. 68-9 GR
MASS INST OF TECHNOLOGY CAMBRIDGE MASSACHUSETTS 02139	B M	D	100	100	125	150	800	500	900	1500
CARNEGIE INST TECHNOLOGY PITTSBURGH PENNSYLVANIA 15212		D	30		50		500	80	1000	120

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: OPTION IN QUANTITATIVE ANALYSIS

INSTITUTION	1964-65 ASSOC CHT	1964-65 BASOCHT	1964-65 MASOCHT	1964-65 DSOCHT	PLANNED ASSOCHT	PLANNED BASOCHT	PLANNED MASOCHT	PLANNED DSOCHT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG.68-9 UNGR	COMP. SCI. MAJORS PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIVERSITY OF CHICAGO CHICAGO, ILLINOIS 60637			M	D					100		200		20	400	100	800
SOUTHERN METHODIST UNIVERSITY DALLAS TEXAS 75222		B	M										400	25	600	100

NAME OF PROGRAM: OPTION IN SYSTEMS ENGINEERING

INSTITUTION	1964-65 ASSOC CHT	1964-65 BASOCHT	1964-65 MASOCHT	1964-65 DSOCHT	PLANNED ASSOCHT	PLANNED BASOCHT	PLANNED MASOCHT	PLANNED DSOCHT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG.68-9 UNGR	COMP. SCI. MAJORS PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIVERSITY OF ARIZONA TUCSON ARIZONA 85721		B	M	D									123	42	350	150
OLD DOMINION COLLEGE NORFOLK VIRGINIA 23508						B							300	10	550	30

NAME OF PROGRAM: OPTION IN MACHINE COMPUTERS

INSTITUTION	1964-65 ASSOC CHT	1964-65 BASOCHT	1964-65 MASOCHT	1964-65 DSOCHT	PLANNED ASSOCHT	PLANNED BASOCHT	PLANNED MASOCHT	PLANNED DSOCHT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG.68-9 UNGR	COMP. SCI. MAJORS PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
GEORGE WASHINGTON UNIVERSITY WASHINGTON D C 20006		B	M					D	5	6	70	20	245	95	720	265

ITEM I-B-1,2,3 COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM: OPTION IN SYSTEMS ANALYSIS

INSTITUTION	1964-65 ASSOC CHT	1964-65 BACS T	1964-65 MASC T	1964-65 DOCT	PLANNED ASSOC CHT	PLANNED BACS T	PLANNED MASC T	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG.68-9 UNGR	COMP. SCI. MAJORS PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
MIAMI UNIVERSITY OXFORD, OHIO 45056		B							100		400		50	40	300	150

NAME OF PROGRAM: OPTION IN ADMINISTRATIVE SCIENCE

INSTITUTION	1964-65 ASSOC CHT	1964-65 BACS T	1964-65 MASC T	1964-65 DOCT	PLANNED ASSOC CHT	PLANNED BACS T	PLANNED MASC T	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG.68-9 UNGR	COMP. SCI. MAJORS PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
FLORIDA ATLANTIC UNIVERSITY BOCA RATON FLORIDA 33432		B											300		800	
CLEMSON UNIVERSITY CLEMSON SOUTH CAROLINA 29631						B			30		60	10	300	30	2000	100

NAME OF PROGRAM: OPTION IN MANAGEMENT SCIENCE

INSTITUTION	1964-65 ASSOC CHT	1964-65 BACS T	1964-65 MASC T	1964-65 DOCT	PLANNED ASSOC CHT	PLANNED BACS T	PLANNED MASC T	PLANNED DOCT	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG.68-9 UNGR	COMP. SCI. MAJORS PROG.68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIV OF SOUTHERN CALIFORNIA LOS ANGELE CALIFORNIA 90007			M	D									480	150	650	600
AMERICAN UNIVERSITY WASHINGTON D C 20016			M					D					30	30	30	30
PACE COLLEGE NEW YORK, NEW YORK 10038							M			300	30		400		800	90

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NAME OF PROGRAM: OPTION IN INFORMATION SYSTEMS

INSTITUTION	1964-65 ASSOC.	1964-65 BACH.	1964-65 MAST.	1964-65 DOCT.	PLANNED ASSOC.	PLANNED BACH.	PLANNED MAST.	PLANNED DOCT.	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
UNIVERSITY OF MINNESOTA MINNEAPOLIS MINNESOTA 55455						B	M				50		850	545	5600	1225
LEHIGH UNIVERSITY BETHLEHEM PENNSYLVANIA 18015							M	D	5	20	40		500	100	750	150
TEMPLE UNIVERSITY PHILADELPHIA, PA. 19122							M						50	100	3000	400

NAME OF PROGRAM: OPTION IN INDUSTRIAL ENGINEERING

INSTITUTION	1964-65 ASSOC.	1964-65 BACH.	1964-65 MAST.	1964-65 DOCT.	PLANNED ASSOC.	PLANNED BACH.	PLANNED MAST.	PLANNED DOCT.	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
ARIZONA STATE UNIVERSITY TEMPE ARIZONA 85281		B	M	D					14	6	36	33	1181	335	1600	500

NAME OF PROGRAM: OPTION IN STATISTICS

INSTITUTION	1964-65 ASSOC.	1964-65 BACH.	1964-65 MAST.	1964-65 DOCT.	PLANNED ASSOC.	PLANNED BACH.	PLANNED MAST.	PLANNED DOCT.	STUDENTS TRAINED TO USE COMPUTERS: COMP. SCI. MAJORS 1964-65 UNGR	COMP. SCI. MAJORS 1964-65 GR	COMP. SCI. MAJORS PROG. 68-9 UNGR	COMP. SCI. MAJORS PROG. 68-9 GR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 UNGR	OTHERS- AT LEAST ONE LANGUAGE 1964-65 GR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 UNGR	OTHERS- AT LEAST ONE LANGUAGE PROG. 68-9 GR
EMORY UNIVERSITY ATLANTA GEORGIA 30322			M	D						10		20	30	95	65	200
PRINCETON UNIVERSITY PRINCETON NEW JERSEY 08540						B	M	D	20	40	80	75	1500	650	1750	925

IV. Distributions of Computers by Strata and Groups of Strata (Item I-A of Questionnaire)

Part A: By Strata

For each stratum the sample frequency of occurence of each model of computer was determined for each of the various criteria given in Item I-A. The sample values are given for the installed computers but not for the on-order systems or those to be replaced. For the latter two only population estimates are presented. For example the second line (IBM 1401) for stratum 1 1 4 is read as follows:

Public universities offering the doctorate reported 54 IBM 1401 computers installed, 39 were leased, 10 purchased and 5 were partly leased and partly purchased. These machines were in use an average of 293 hours per month during 1964-65. Based upon these figures an estimated 59 IBM 1401 systems were being used for research and instructional purposes in 1964-65 in public universities offering the doctorate; 42 are estimated to have been leased, 10 purchased and 5 some of each. An estimated 19 of these systems are to be replaced in the near future and another 3 are estimated to be on order with 1 expected in 1965 and the other 2 in 1967. (Computations were truncated rather than rounded, hence the numbers may not add up.)

Part B: By Groups of Strata

Format is identical to Part A except that sample values are not given since they would have no meaning.

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CTL 1 TYPE 1 LEVEL 3

SAMPLE SIZE 4 POP. SIZE 4
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1401	2	2	2	2					130	1							
IBM 1620	1	1					1	1	300								
IBM 7040	1	1					1	1	160								
IBM 360/40												1		1			
IBM 360/30												1		1			

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CTL 1 TYPE 1 LEVEL 4

SAMPLE SIZE 97 POP. SIZE 106

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	75	81	43	46	19	20	13	14	274	22							
IBM 1401	54	59	39	42	10	10	5	5	293	19		3	1	2			
IBM 7040	21	22	16	17	1	1	4	4	279	10		5	5				
IBM 7094	11	12	4	4	2	2	5	5	428	6							
IBM 1410	10	10	10	10					424	8							
IBM 1620II	9	9	8	8			1	1	320	5							
CDC 1604	5	5			5	5			381								
IBM 709	5	5			4	4	1	1	327	3							
IBM 1710	5	5	4	4					247								
IBM 7074	4	4	3	3	1	1			490	4							
SDS 910	4	4	1	1	3	3			352								
IBM 1460	4	4	4	4					333	1		2		1	1		
CDC 3600	4	4			3	3	1	1	284								
CDC 160A	4	4	1	1	2	2	1	1	232								
CDC LGP 30	4	4			3	3	1	1	105								
CDC 160	3	3			3	3			412								
SDS 930	3	3	1	1	1	1	1	1	400			2		2			
IBM 7044	3	3	3	3					242	1		2	1	1			
UNI 418	2	2					2	2	500								
PDP 7	2	2			2	2			500			1		1			
UNI SS80	2	2			1	1			488								
CDC RP4000	2	2			2	2			300								
PDP 6	2	2			2	2			250								
PDP 5	2	2			2	2			190								
CDC 8090	2	2	1	1	1	1			175								
CDC 3200	2	2	2	2					75	2							
IBM 7072	1	1					1	1	600	1							
TRW 300	1	1			1	1			500								
IBM 7090	1	1	1	1					470	1							
SDS 920	1	1	1	1					400								
ILL IAC II	1	1			1	1			400								
GEC 225	1	1			1	1			320								
TRW 400	1	1			1	1			300								
ILL CSX I	1	1			1	1			300								
UNI 1105	1	1			1	1			257	1							
PDP 8	1	1			1	1			240			4	2	1			1

CTL 1 TYPE 1 LEVEL 4

SAMPLE SIZE 97 POP. SIZE 106

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
BUR 220	1	1	1	1					200								
ALW III-E	1	1			1	1			200								
IBM 360/30	1	1	1	1					190				8	1	6		1
CYC LONE	1	1			1	1			164	1							
CDC G-20	1	1			1	1			130								
PDP 4	1	1					1	1	120								
UNI 1004	1	1			1	1			84				1		1		
GEC PK4000	1	1			1	1			80								
CDC 3400	1	1	1	1					60								
UNI 1107	1	1	1	1					55								
DEC LINC	1	1			1	1			50								
BUR 5500	1	1			1	1			50				1			1	
PAB 250	1	1			1	1			40								
IBM 797	1	1			1	1			40								
BUR 205	1	1	1	1						1							
CDC 924	1	1			1	1											
PHI 211	1	1			1	1											
IBM 360/90											1			1			
IBM 360/75											2		1	1			
IBM 1440											1		1				
CDC 6400											3		2	1			
GEC DN/30											1		1				
GEC 415											1		1				
GEC 625											1		1				
IBM 704											1		1				
IBM 1800											2		1	1			
IBM 1500											1			1			
CDC 3100											2	1	1				
SDS 925											1		1				
IBM 1130											2		1	1			
TUC 1/3											2		2				
HON 2200											1	1					
IBM 360/20											1			1			
IBM 360/44											3		1	2			
IBM 360/50											15		7	4	3		
IBM 360/40											25	1	14	8	1		

CTL 1 TYPE 1 LEVEL 4

SAMPLE SIZE 97 POP. SIZE 106
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 360/65							4			1	3		
CDC 6600							2		2				
CDC 1700							2		1	1			
CDC 3300							3	1	1	1			
IBM 360/67							15		3	4	7		

CTL 1 TYPE 2 LEVEL 2

SAMPLE SIZE 12 POP. SIZE 48

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	SAMPLE(LEFT COLUMN) NO.INSTLD	POPULATION(RIGHT COLUMN) NO.INSTLD	SAMPLE NO.LEASED	POP. NO.LEASED	SAMPLE NO.PURCH.	POP. NO.PURCH.	SAMPLE NO.BOTH	POP. NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	8	1	4			1	4	155								
IBM 1401	1	4	1	4					100								
IBM 1130																	
											8			4	4		

CTL 1 TYPE 2 LEVEL 3

SAMPLE SIZE 18 POP. SIZE 60

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	SAMPLE(LEFT COLUMN) NO.INSTLD	POPULATION(RIGHT COLUMN) NO.INSTLD	SAMPLE NO.LEASED	POP. NO.LEASED	SAMPLE NO.PURCH.	POP. NO.PURCH.	SAMPLE NO.BOTH	POP. NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	13	43	10	33	2	6	1	3	174	16		3	3				
IBM 1460	1	3	1	3					300	3							
IBM 1620II	1	3	1	3					160	3							
IBM 1440	1	3	1	3					24								
IBM 1130											3		3				
RCA 70/45											3			3			
HDN 1200											3			3			
IBM 1401											6			6			
IBM 360/30											3				3		
IBM 360/50											3				3		
IBM 360/40											10			3	6		

CTL 1 TYPE 2 LEVEL 4

SAMPLE SIZE 7 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	5	5	3	3	2	2		203		3						
CDC 3100	1	1	1	1				250								
IBM 1460	1	1	1	1				190								
IBM 1130	1	1	1	1				120								
IBM 7040	1	1	1	1				100								
MON XI	1	1	1	1				100		1						
IBM 360/50												1			1	
CDC 3300												1			1	

CTL 1 TYPE 2 LEVEL 5

SAMPLE SIZE 1 POP. SIZE 2
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	1	2	1	2				350								

CTL 1 TYPE 4 LEVEL 2

SAMPLE SIZE 9 POP. SIZE 37
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
CDC G-15								4	4				

CTL 1 TYPE 4 LEVEL 3

SAMPLE SIZE 33 POP. SIZE 116

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	8	28	5	17	1	3	2	7	160	7							
IBM 1440	1	3	1	3					80			3		3			
IBM 360/50												3					3
IBM 1130												14		3	10		
HON 200												7		7			
IBM 1401												14			10	3	

CTL 1 TYPE 4 LEVEL 4

SAMPLE SIZE 5 POP. SIZE 5

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	4	4	4	4					180	3							
IBM 360/30												1		1			
IBM 360/40												1			1		
IBM 1401												2		1	1		

CTL 1 TYPE 5 LEVEL 2

SAMPLE SIZE 5 POP. SIZE 6

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	2	1	1	1	1			163			1		1			
CDC LGP 30	1	1			1	1											
IBM 1130												1		1			

CTL 1 TYPE 5 LEVEL 3

SAMPLE SIZE 6 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	4	4	2	2	1	1	1	1	123								
CDC G-15	2	2			1	1	1	1	140	1							
BUR 205	1	1			1	1			100								
CDC 3100											1			1			
MIT											1		1				

CTL 1 TYPE 5 LEVEL 4

SAMPLE SIZE 6 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	2			1	1	1	1	180								
BUR 5500	1	1			1	1			300								
IBM 1401	1	1	1	1					260	1							
IBM 7040	1	1	1	1					260	1							
CDC 8090	1	1	1	1					200								
BUR 220	1	1			1	1			150	1							
CDC LGP 30	1	1			1	1			40								
IBM 1620II	1	1	1	1													
IBM 1500											1			1			
IBM 360/30											2			2			
IBM 360/44											1		1				
IBM 360/40											1		1				
UNI 1108II											1			1			
BUR 5500TS											1		1				

CTL 1 TYPE 7 LEVEL 3

SAMPLE SIZE 1 POP. SIZE 1

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	1	1		1	1		75	1					
HON 200									1		1		

CTL 1 TYPE 7 LEVEL 4

SAMPLE SIZE 8 POP. SIZE 8

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	2	2	2			259	1					
IBM 1620II	2	2	2	2			238						
IBM 1440	1	1	1	1			176						
IBM 1410	1	1	1	1			176						
CDC RP4000	1	1		1	1		172						
IBM 1130								1		1			
CDC 160A								1		1			
IBM 360/40								1			1		
IBM 360/30								1	1				

CTL 1 TYPE 8 LEVEL 1

SAMPLE SIZE 71 POP. SIZE 400

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	12	67	6	33	5	28	1	5	145	16	5		5				
IBM 1440	1	5			1	5					11		11				
IBM 1401	1	5	1	5						5	39		16	22			
HON 1200											5		5				
IBM 360/30											11		5			5	
IBM 1130											16		5	11			
IBM 360/20											22		5	16			

CTL 1 TYPE 9 LEVEL 1

SAMPLE SIZE 8 POP. SIZE 20

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	SAMPLE(LEFT COLUMN) NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	POPULATION(RIGHT COLUMN) USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	5	2	5	165								
BUR 204	1	2	1	2	64								

CTL 2 TYPE 1 LEVEL 3

SAMPLE SIZE 9 POP. SIZE 9

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	SAMPLE(LEFT COLUMN) NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	POPULATION(RIGHT COLUMN) USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	5	5	2	2	2	2	1	1	202					
IBM 1401	1	1	1	1					85					
CDC LGP 30	1	1			1	1			80					
IBM 1130										2		2		
UNI SS80										1			1	

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CTL 2 TYPE 1 LEVEL 4

SAMPLE SIZE 61 POP. SIZE 65

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	32	34	20	21	9	9	3	3	275	12							
IBM 1401	31	33	21	22	6	6	4	4	267	13		1		1			
IBM 7040	9	9	6	6			3	3	348	5		1	1				
IBM 1410	9	9	6	6			3	3	288	4							
IBM 7094	8	8	5	5	1	1	2	2	368	4		2		2			
IBM 1620II	6	6	6	6					226	6							
CDC 1604	4	4	1	1	2	2	1	1	261	1							
PDP 7	3	3	1	1	2	2			373								
CDC 160A	3	3	1	1	2	2			248	1							
IBM 7072	3	3	1	1	2	2			243	1							
CDC LGP 30	3	3	1	1	2	2			81								
UNI 1004	3	3	3	3					56	1							
IBM 360/30	2	2	2	2					600		5		4	1			
IBM 7090	2	2			1	1	1	1	379	1							
IBM 7044	2	2	1	1			1	1	310		1		1				
PDP 1	2	2			1	1	1	1	310								
IBM 1710	2	2	1	1	1	1			255								
PDP LINC	2	2			2	2			250								
BUR 5500	2	2			2	2			232	1							
PDP 4	2	2			2	2			183								
BUR 205	2	2			2	2			171	2							
PDP 5	2	2			1	1	1	1	148								
CDC 3400	2	2	2	2					142								
CDC G-20	2	2			1	1				1	1		1				
ASI 6020	1	1					1	1	720	1	1			1			
CDC G-21	1	1			1	1			600								
IBM 7080	1	1	1	1					450								
IBM 1460	1	1	1	1					450	1							
RIC E	1	1			1	1			350								
CDC 6600	1	1	1	1					325								
MIT TX0	1	1					1	1	300								
UNI 1107	1	1			1	1			300								
IBM 709	1	1			1	1			278								
HON 800	1	1			1	1			250								
GEC 235	1	1	1	1					250	1							
PDP 8	1	1			1	1			200		3		3				

CTL 2 TYPE 1 LEVEL 4

SAMPLE SIZE 61 POP. SIZE 65
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
GEC 225	1	1			1	1			200								
BUR 220	1	1			1	1			200								
CDC RP4000	1	1			1	1			175								
IBM 650	1	1			1	1			175								
REC OMPIII	1	1			1	1			170								
IBM 7070	1	1					1	1	167								
HON 400	1	1			1	1			150								
IBM 7074	1	1					1	1	150								
MAN IACIII	1	1			1	1			103								
RCA FLACII	1	1			1	1			10								
BEK 420	1	1			1	1											
HON 200	1	1			1	1											
RCA 301	1	1	1	1													
CDC G-15	1	1			1	1											
COR	1	1															
CDC 3300											2			2			
GEC 645											1		1				
SDS 940											1		1				
ASI 6040											1		1				
CDC 8090											1		1				
GEC 425											1		1				
SDS 910											1		1				
BUR 5500TS											1		1				
SDS 9300											1	1					
IBM 1500											1			1			
IBM 360/20											2			1	1		
SDS 925											2	1	1				
IBM 1130											2		1	1			
IBM 1800											3		2	1			
CDC 8092											1		1				
LIN C8											1			1			
CDC 6400											1			1			
HON 1200											1			1			
TUC 1/3											1		1				
IBM 360/65											3		1		2		
SDS 930											1		1				

CTL 2 TYPE 1 LEVEL 4

SAMPLE SIZE 61 POP. SIZE 65

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF CUMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 360/40							10	1	3	5		1	
IBM 360/67							5		1	3	1		
IBM 360/44							2			2			
IBM 360/91							1					1	
IBM 360/75							2			2			
IBM 360/50							11		6	4	1		

CTL 2 TYPE 2 LEVEL 2

SAMPLE SIZE 81 POP. SIZE 508

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	5	31	1	6	4	25	189		6		6		
BUR 205	2	12			2	12	91						
MCD	1	6											
CDC LGP 30	1	6			1	6							
BUR 101E							6					6	
TSH FS1440							6					6	
IBM 360/44							6				6		
IBM 1401							6			6			
IBM 1130							6		6				

CTL 2 TYPE 2 LEVEL 3

SAMPLE SIZE 55 POP. SIZE 172
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	14	43	10	31	3	9	1	3	119	9	3		3				
CDC LGP 30	2	6			2	6			129	3							
NCR 304	1	3			1	3			300								
BUR 220	1	3			1	3			150								
BUR 205	1	3			1	3			100	3							
MIT	1	3							1								
ALW III	1	3			1	3											
WDP	1	3															
GEC 215											3		3				
IBM 360/30											6			6			
PDP 8											3		3				
IBM 1401											6			6			
IBM 1130											18		9	9			

CTL 2 TYPE 2 LEVEL 4

SAMPLE SIZE 20 POP. SIZE 22
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	10	11	6	6	2	2	2	2	168	2							
IBM 1401	2	2	2	2					180	1							
IBM 7070	1	1			1	1			200	1							
GEC 225	1	1					1	1	200								
CDC LGP 30	1	1			1	1			50								
GEC 235TER	1	1	1	1					25	1							
GEC 265	1	1			1	1				1							
IBM 360/40											1				1		
IBM 360/50											1		1				
GEC DNET15											1		1				
GEC 625											1		1				
IBM 1130											4		1	3			
TSH SDS940											1		1				

CTL 2 TYPE 4 LEVEL 3

SAMPLE SIZE 8 POP. SIZE 8
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1401	1	1	1	1			120						

CTL 2 TYPE 5 LEVEL 2

SAMPLE SIZE 5 POP. SIZE 14
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	5	1	2	1	2	200						

CTL 2 TYPE 5 LEVEL 3

SAMPLE SIZE 5 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	2	1	1		1	1	125	1				
CDC G-15	1	1			1	1		300	1				
IBM 1130										2		?	

CTL 2 TYPE 5 LEVEL 4

SAMPLE SIZE 7 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF CUMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	4	5	2	2	2	2			355	2							
IBM 7040	2	2	2	2					210	1							
UNI 1107	1	1			1	1			230								
IBM 7094	1	1					1	1	120	1							
UNI 1105	1	1	1	1					83	1							
BUR 220	1	1			1	1			30								
IBM 360/40											1				1		
PDP 7											1		1				
IBM 360/20											1				1		
IBM 1800											1				1		
IBM 360/44											2		1	1			
IBM 360/50											1		1				

CTL 2 TYPE 7 LEVEL 2

SAMPLE SIZE 14 POP. SIZE 53
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	1	3	1	3					203								
IBM 1130											3				3		

CTL 2 TYPE 7 LEVEL 3

SAMPLE SIZE 11 POP. SIZE 13
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH		USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	2	2	2					100								
MIT 7094	1	1															
IBM 1130											1				1		

CTL 2 TYPE 7 LEVEL 4

SAMPLE SIZE 9 POP. SIZE 11
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	4	4	2	2	1	1				291						
IBM 1401	1	1	1	1							1					
IBM 360/30												1			1	

CTL 2 TYPE 9 LEVEL 1

SAMPLE SIZE 6 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD		NO.LEASED		NO.PURCH.		NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
CDC LGP 30	1	1			1	1				1						
IBM 1620												1			1	

CTL 1 TYPE X LEVEL 1

COMBINED SAMPLE SIZE 82 POP.SIZE 428
POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	72	33	33	5	145	16	5		5				
IBM 1401	5	5				5	39		16	22			
IBM 1440	5		5				11		11				
BUR 204	2		2		64								
IBM 360/20							22		5	16			
IBM 1130							16		5	11			
IBM 360/30							11		5			5	
HON 1200							5		5				

CTL 1 TYPE X LEVEL 2

COMBINED SAMPLE SIZE 27 POP.SIZE 92
POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	10	5	1	4	155		1		1				
IBM 1401	4	4			100								
CDC LGP 30	1		1										
CDC G-15							4		4				
IBM 1130							9		4	5			

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CTL 1 TYPE X LEVEL 3

COMBINED SAMPLE SIZE 62 POP.SIZE 188

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	77	52	11	12	165	24	3	3					
IBM 1440	6	6			60		3		3				
IBM 1460	3	3			300	3							
IBM 1620II	3	3			160	3							
CDC G-15	2		1	1	140	1							
IBM 1401	2	2			130	1	20			16	3		
IBM 7040	1			1	160								
BUR 205	1		1		100								
MIT							1		1				
CDC 3100							1			1			
HON 200							8		7	1			
IBM 360/50							6				3	3	
HON 1200							3			3			
RCA 70/45							3			3			
IBM 1130							17		6	10			
IBM 360/30							4			1	3		
IBM 360/40							11			4	6		

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CONTRACT NSF C465

CTL 1 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 123 POP.SIZE 132

POPULATION ESTIMATES

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	94	55	23	15	261	29							
IBM 1401	60	43	10	5	291	20	5	1	1	3			
IBM 7040	24	19	1	4	267	11	5	5					
IBM 7094	12	4	2	5	428	6							
IBM 1620II	12	11		1	314	5							
IBM 1410	11	11			406	8							
CDC 1604	5		5		381								
IBM 709	5		4	1	327	3							
IBM 1460	5	5			324	1	2		1	1			
IBM 1710	5	4			247								
CDC LGP 30	5		4	1	101								
IBM 7074	4	3	1		490	4							
SDS 910	4	1	3		352								
CDC 3600	4		3	1	284								
CDC 160A	4	1	2	1	232		1			1			
CDC 160	3		3		412								
SDS 930	3	1	1	1	400		2		2				
CDC RP4000	3		3		291								
IBM 7044	3	3			242	1	2	1		1			
CDC 8090	3	2	1		176								
PDP 7	2		2		500		1		1				
UNI 418	2			2	500								
UNI SS80	2		1		488								
PDP 6	2		2		250								
BUR 220	2	1	1		197	1							
PDP 5	2		2		190								
CDC 3200	2	2			75	2							
BUR 5500	2		2		63		1			1			
IBM 7072	1			1	600	1							
TRW 300	1		1		500								
IBM 7090	1	1			470	1							
ILL IAC II	1		1		400								
SDS 920	1	1			400								
GEC 225	1		1		320								
ILL CSX I	1		1		300								
TRW 400	1		1		300								

CTL 1 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 123 POP.SIZE 132

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH USE	REPL.	ON ORDER	65	66	67	68	69	UNK
UNI 1105	1		1	257	1							
CDC 3100	1	1		250		2	1	1				
PDP 8	1		1	240		4	2	1				1
ALW III-E	1		1	200								
IBM 360/30	1	1		190		12	1	7	3	1		
IBM 1440	1	1		176		1		1				
CYC LONE	1		1	164	1							
CDC G-20	1		1	130								
IBM 1130	1	1		120		3		1	2			
PDP 4	1			1 120								
MUN XI	1	1		100	1							
UNI 1004	1		1	84		1	1					
GEC PK4000	1		1	80								
CDC 3400	1	1		60								
UNI 1107	1	1		55								
DEC LINC	1		1	50								
IBM 797	1		1	40								
PAB 250	1		1	40								
PHI 211	1		1									
CDC 924	1		1									
BUR 205	1	1			1							
BUR 5500TS						1		1				
UNI 1108II						1			1			
IBM 360/67						15		3	4	7		
CDC 3300						4	1	1	2			
CDC 1700						2		1	1			
CDC 6600						2		2				
IBM 360/65						4			1	3		
IBM 360/40						28	1	15	8	3		
IBM 360/50						16		7	5	3		
IBM 360/44						4		2	2			
IBM 360/20						1			1			
HUN 2200						1	1					
TUC 1/3						2		2				
SDS 925						1		1				
IBM 1500						2			2			

CTL 1 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 123 POP.SIZE 132
POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1800							2		1	1			
IBM 704							1		1				
GEC 625							1		1				
GEC 415							1		1				
GEC DN/30							1		1				
CDC 6400							3		2	1			
IBM 360/75							2		1	1			
IBM 360/90							1			1			

CTL 1 TYPE X LEVEL 5

COMBINED SAMPLE SIZE 1 POP.SIZE 2
POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	2			350								

CTL 2 TYPE X LEVEL 1

COMBINED SAMPLE SIZE 59 POP.SIZE 260
POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
CDC LGP 30	1		1			1							
IBM 1620								1		1			

CTL 2 TYPE X LEVEL 2

COMBINED SAMPLE SIZE 115 POP.SIZE 702

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	39	11	27		190		6			6			
BUR 205	12		12		91								
CDC LGP 30	6		6										
MCD	6												
IBM 1130							9		6	3			
IBM 1401							6			6			
IBM 360/44							6				6		
TSH FS1440							6						6
BUR 101E							6						6

CTL 2 TYPE X LEVEL 3

COMBINED SAMPLE SIZE 96 POP.SIZE 278

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	52	36	11	5	121	10	3		3				
CDC LGP 30	7		7		126	3							
NCR 304	3		3		300								
BUR 220	3		3		150								
BUR 205	3		3		100	3							
MIT	3				1								
WDP	3												
ALW III	3		3										
IBM 1401	2	2			101		6			6			
CDC G-15	1		1		300	1							
MIT 7094	1												
PDP 8							3		3				
IBM 360/30							6			6			
GEC 215							3		3				
UNI SS80							1			1			
IBM 1130							23		13	10			

CTL 2 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 104 PUP.SIZE 137

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	54	31	14	5	261	16							
IBM 1401	36	25	6	4	245	15		1		1			
IBM 7040	11	8		3	331	6		1	1				
IBM 7094	9	5	1	3	337	5		2		2			
IBM 1410	9	6		3	288	4							
IBM 1620II	6	6			226	6							
CDC 1604	4	1	2	1	261	1							
CDC LGP 30	4	1	3		73								
PDP 7	3	1	2		373			1		1			
CDC 160A	3	1	2		248	1							
IBM 7072	3	1	2		243	1							
UNI 1004	3	3			56	1							
IBM 360/30	2	2			600			6		4	2		
IBM 7090	2		1	1	379	1							
PDP 1	2		1	1	310								
IBM 7044	2	1		1	310			1		1			
UNI 1107	2		2		291								
IBM 1710	2	1	1		255								
PDP LINC	2		2		250								
BUR 5500	2		2		232	1							
GEC 225	2		1	1	200								
PDP 4	2		2		183								
BUR 220	2		2		179								
IBM 7070	2		1	1	175	1							
BUR 205	2		2		171	2							
PDP 5	2		1	1	148								
CDC 3400	2	2			142								
CDC G-20	2		1			1		1		1			
ASI 6020	1			1	720	1		1			1		
CDC G-21	1		1		600								
IBM 1460	1	1			450	1							
IBM 7080	1	1			450								
RIC E	1		1		350								
CDC 6600	1	1			325								
MIT TXO	1			1	300								
IBM 709	1		1		278								

CTL 2 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 104 POP.SIZE 137

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
GEC 235	1	1			250	1							
HON 800	1		1		250								
PDP 8	1		1		200				3		3		
IBM 650	1		1		175								
CDC RP4000	1		1		175								
REC OMPIII	1		1		170								
IBM 7074	1			1	150								
HON 400	1		1		150								
MAN IACIII	1		1		103								
UNI 1105	1	1			83	1							
GEC 235IER	1	1			25	1							
RCA FLACII	1		1		10								
GEC 265	1		1			1							
CON	1												
CDC G-15	1		1										
RCA 301	1	1											
HON 200	1		1										
BEK 420	1		1										
TSH SDS940							1		1				
GEC 625							1		1				
GEC DNET15							1		1				
IBM 360/50							13		8	4	1		
IBM 360/75							2			2			
IBM 360/91							1					1	
IBM 360/44							4		1	3			
IBM 360/67							5		1	3	1		
IBM 360/40							12	1	3	6	1	1	
SDS 930							1		1				
IBM 360/65							3		1		.2		
TUC 1/3							1		1				
HON 1200							1			1			
CDC 6400							1			1			
LIN C8							1			1			
CDC 8092							1		1				
IBM 1800							4		2	2			
IBM 1130							6		2	4			

CTL 2 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 104 POP.SIZE 137

POPULATION ESTIMATES

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
SDS 925							2	1	1				
IBM 360/20							3			2	1		
IBM 1500							1			1			
SDS 9300							1	1					
BUR 5500TS							1		1				
SDS 910							1		1				
GEC 425							1		1				
CDC 8090							1		1				
ASI 6040							1		1				
SDS 940							1		1				
GEC 645							1		1				
CDC 3300							2			2			

CTL X TYPE X LEVEL 1

COMBINED SAMPLE SIZE 141 POP.SIZE 688

POPULATION ESTIMATES

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	72	33	33	5	145	16	6		6				
IBM 1440	5		5				11		11				
IBM 1401	5	5				5	39		16	22			
BUR 204	2		2		64								
CDC LGP 30	1		1			1							
HUN 1200							5		5				
IBM 360/30							11		5			5	
IBM 1130							16		5	11			
IBM 360/20							22		5	16			

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CTL X TYPE X LEVEL 2

COMBINED SAMPLE SIZE 142 POP.SIZE 794

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	49	16	28	4	185		7		1	6			
BUR 205	12		12		91								
CDC LGP 30	7		7										
MCD	6												
IBM 1401	4	4			100		6			6			
BUR 101E							6						6
TSH FS1440							6						6
IBM 360/44							6				6		
IBM 1130							18		10	8			
CDC G-15							4		4				

CTL X TYPE X LEVEL 3

COMBINED SAMPLE SIZE 158 POP.SIZE 466

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	129	88	22	17	138	34	6	3	3				
CDC LGP 30	7		7		126	3							
IBM 1440	6	6			60		3		3				
IBM 1401	4	4			112	1	26			22	3		
BUR 205	4		4		100	3							
NCR 304	3		3		300								
IBM 1460	3	3			300	3							
CDC G-15	3		2	1	235	2							
IBM 1620II	3	3			160	3							
BUR 220	3		3		150								
MIT	3				1		1		1				
ALW III	3		3										
WDP	3												
IBM 7040	1			1	160								
MIT 7094	1												
UNI 5580							1		1				
GEC 215							1		1				
PDP 8							3		3				
IBM 360/40							3		3				
IBM 360/30							11		4	6			
IBM 1130							10		7	3			
RCA 70/45							40	19	20				
HUN 1200							3		3				
IBM 360/50							3		3				
HUN 200							6			3	3		
CDC 3100							8	7	1				
							1		1				

CTL X TYPE X LEVEL 4

COMBINED SAMPLE SIZE 227 POP.SIZE 269

POPULATION ESTIMATES

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.ROTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	148	86	37	20	261	45							
IBM 1401	96	68	16	9	267	35	6	1	2	3			
IBM 7040	35	27	1	7	299	17	6	6					
IBM 7094	21	9	3	8	381	11	2		2				
IBM 1410	20	17		3	345	12							
IBM 1620II	18	17		1	269	11							
CDC 1604	9	1	7	1	319	1							
CDC LGP 30	9	1	7	1	86								
IBM 1710	7	5	1		251								
CDC 160A	7	2	4	1	240	1	1			1			
IBM 1460	6	6			388	2	2		1	1			
IBM 709	6		5	1	302	3							
PDP 7	5	1	4		435		2		2				
IBM 7074	5	3	1	1	316	4							
IBM 7044	5	4		1	276	1	3	1	1	1			
IBM 7072	4	1	2	1	418	2							
SDS 910	4	1	3		352		1		1				
CDC 3600	4		3	1	284								
CDC RP4000	4		4		231								
BUR 220	4	1	3		187	1							
PDP 5	4		3	1	168								
BUR 5500	4		4		149	1	1			1			
UNI 1004	4	3	1		69	1	1	1					
IBM 7090	3	1	1	1	423	2							
CDC 160	3		3		412								
SDS 930	3	1	1	1	400		3		3				
IBM 360/30	3	3			398		18	1	11	5	1		
GEC 225	3		2	1	258								
CDC 8090	3	2	1		176		1		1				
UNI 1107	3	1	2		175								
BUR 205	3	1	2		171	3							
PDP 4	3		2	1	152								
CDC G-20	3		2		130	1	1		1				
CDC 3400	3	3			101								
UNI 418	2			2	500								
UNI SS80	2		1		488								

CTL X TYPE X LEVEL 4

COMBINED SAMPLE SIZE 227 POP.SIZE 269

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
PDP 1	2		1	1	310								
PDP LINC	2		2		250								
PDP 6	2		2		250								
PDP 8	2		2		219			7	2	4			1
IBM 7070	2		1	1	175	1							
UNI 1105	2	1	1		168	2							
CDC 3200	2	2			75	2							
ASI 6020	1			1	720	1		1			1		
CDC G-21	1		1		600								
TRW 300	1		1		500								
IBM 7080	1	1			450								
SDS 920	1	1			400								
ILL IAC II	1		1		400								
RIC E	1		1		350								
CDC 6600	1	1			325			2		2			
MIT TXO	1			1	300								
TRW 400	1		1		300								
ILL CSX I	1		1		300								
HUN 800	1		1		250								
GEC 235	1	1			250	1							
CDC 3100	1	1			250			2	1	1			
ALW III-E	1		1		200								
IBM 1440	1	1			176			1		1			
IBM 650	1		1		175								
REC UMPIII	1		1		170								
CYC LONE	1		1		164	1							
HUN 400	1		1		150								
IBM 1130	1	1			120			9		3	6		
MAN IACIII	1		1		103								
MUN XI	1	1			100	1							
GEC PK4000	1		1		80								
DEC LINC	1		1		50								
PAD 250	1		1		40								
IBM 797	1		1		40								
GEC 235TEN	1	1			25	1							
RCA FLACII	1		1		10								

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT

CONTRACT NSF C465

CTL X TYPE X LEVEL 4

COMBINED SAMPLE SIZE 227 POP.SIZE 269

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH USE	REPL.	ON ORDER	65	66	67	68	69	UNK
BEK 420	1		1									
HON 200	1		1									
RCA 301	1	1										
CDC G-15	1		1									
COM	1											
GEC 265	1		1			1						
CDC 924	1		1									
PHI 211	1		1									
GEC 645						1		1				
SDS 940						1		1				
ASI 6040						1		1				
GEC 425						1		1				
SDS 9300						1	1					
CDC 8092						1		1				
LIN C8						1		1				
HON 1200						1			1			
IBM 360/91						1			1			
GEC DNET15						1					1	
TSH SDS940						1		1				
IBM 360/90						1		1				
IBM 360/75						1			1			
CDC 6400						4		1	3			
GEC DN/30						4		2	2			
GEC 415						1		1				
GEC 625						1		1				
IBM 704						2		2				
IBM 1800						1		1				
IBM 1500						6		3	3			
SDS 925						3			3			
TUC 1/3						3	1	2				
HON 2200						3		3				
IBM 360/20						1	1					
IBM 360/44						4			3	1		
IBM 360/50						8		3	5			
IBM 360/40						29		15	9	4		
IBM 360/65						40	2	18	14	4	1	
						7		1	1	5		

CTL X TYPE X LEVEL 4

COMBINED SAMPLE SIZE 227 POP.SIZE 269

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH USE	REPL. ON ORDER	65	66	67	68	69	UNK
CDC 1700					2		1	1			
CDC 3300					6	1	1	4			
IBM 360/67					20		4	7	8		
UNI 1108II					1			1			
BUR 5500TS					2		2				

CTL X TYPE X LEVEL 5

COMBINED SAMPLE SIZE 1 POP.SIZE 2

POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH USE	REPL. ON ORDER	65	66	67	68	69	UNK
IBM 1620	2	2			350						

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219
POPULATION ESTIMATES

ITEM I-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
IBM 1620	400	225	120	46	172	95	19	3	10	6			
IBM 1401	109	81	16	9	133	41	77	1	18	53	3		
IBM 7040	36	27	1	8	210	17	6	6					
CDC LGP 30	24	1	22	1	111	4							
IBM 7094	21	9	3	8	381	11	2		2				
IBM 1620II	21	20		1	199	14							
IBM 1410	20	17		3	345	12							
BUR 205	19	1	18		107	6							
IBM 1440	12	7	5		102		15		15				
IBM 1460	9	9			332	5	2		1	1			
CDC 1604	9	1	7	1	319	1							
IBM 1710	7	5	1		251								
CDC 160A	7	2	4	1	240	1	1			1			
BUR 220	7	1	6		163	1							
IBM 709	6		5	1	302	3							
MCU	6												
PDP 7	5	1	4		435		2		2				
IBM 7074	5	3	1	1	316	4							
IBM 7044	5	4		1	276	1	3	1	1	1			
IBM 7072	4	1	2	1	418	2							
SDS 910	4	1	3		352		1		1				
CDC 3600	4		3	1	284								
CDC G-15	4		3	1	235	2	4		4				
CDC RP4000	4		4		231								
PDP 5	4		3	1	168								
BUR 5500	4		4		149	1	1			1			
UNI 1004	4	3	1		69	1	1	1					
IBM 7090	3	1	1	1	423	2							
CDC 160	3		3		412								
SDS 930	3	1	1	1	400		3		3				
IBM 360/30	3	3			398		39	1	16	12	4	5	
NCR 304	3		3		300								
GEC 225	3		2	1	258								
CDC 8090	3	2	1		176		1		1				
UNI 1107	3	1	2		175								
PDP 4	3		2	1	152								

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219

POPULATION ESTIMATES

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
CDC G-20	3		2		130	1	1		1				
CDC 3400	3	3			101								
MIT	3				1		1		1				
ALW III	3		3										
WDP	3												
UNI 418	2			2	500								
UNI SS80	2		1		488		1			1			
PDP 1	2		1	1	310								
PDP LINC	2		2		250								
PDP 6	2		2		250								
PDP 8	2		2		219		10	2	7				1
IBM 7070	2		1	1	175	1							
UNI 1105	2	1	1		168	2							
CDC 3200	2	2			75	2							
BUR 204	2		2		64								
ASI 6020	1			1	720	1	1			1			
CDC G-21	1		1		600								
TRW 300	1		1		500								
IBM 7080	1	1			450								
SDS 920	1	1			400								
ILL IAC II	1		1		400								
RIC E	1		1		350								
CDC 6600	1	1			325		2		2				
MIT TXU	1			1	300								
TRW 400	1		1		300								
ILL CSX I	1		1		300								
HON 800	1		1		250								
GEC 235	1	1			250	1							
CDC 3100	1	1			250		3	1	1	1			
ALW III-E	1		1		200								
IBM 650	1		1		175								
REC UMPIII	1		1		170								
CYC LONE	1		1		164	1							
HON 400	1		1		150								
IBM 1130	1	1			120		83		37	45			
MAN IACIII	1		1		103								

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219
POPULATION ESTIMATES

ITEM 1-A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
MON XI	1	1			100	1							
GEC PK4000	1		1		80								
DEC LINC	1		1		50								
PAB 250	1		1		40								
IBM 797	1		1		40								
GEC 235TER	1	1			25	1							
RCA FLACII	1		1		10								
BEK 420	1		1										
RCA 301	1	1											
CUR	1												
GEC 265	1		1			1							
CDC 924	1		1										
PHI 211	1		1										
MII 7094	1												
HON 200	1		1					8		7	1		
GEC 645								1		1			
SDS 940								1		1			
ASI 6040								1		1			
GEC 425								1		1			
SDS 9300								1	1				
CDC 8092								1		1			
LIN C8								1			1		
IBM 360/91								1				1	
GEC DNET15								1		1			
TSH SDS940								1		1			
IBM 360/90								1			1		
IBM 360/75								4		1	3		
CDC 6400								4		2	2		
GEC DN/30								1		1			
GEC 415								1		1			
GEC 625								2		2			
IBM 704								1		1			
IBM 1800								6		3	3		
IBM 1500								3			3		
SDS 925								3	1	2			
TUC 1/3								3		3			

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP.SIZE 2219

POPULATION ESTIMATES

ITEM I=A COMPUTERS INSTALLED AND ON ORDER BY END OF REPORTING PERIOD (USUALLY 6-30-65):

NAME OF COMPUTER	NO.INSTLD	NO.LEASED	NO.PURCH.	NO.BOTH	USE	REPL.	ON ORDER	65	66	67	68	69	UNK
HON 2200							1	1					
IBM 360/65							7		1	1	5		
CDC 1700							2		1	1			
CDC 3300							6	1	1	4			
IBM 360/67							20		4	7	8		
UNI 1108II							1			1			
BUR 5500TS							2		2				
GEC 215							3		3				
IBM 360/40							51	2	18	18	10	1	
RCA 70/45							3			3			
IBM 360/50							35		15	9	7	3	
BUR 101E							6						6
TSH FS1440							6						6
IBM 360/44							14		3	5	6		
HON 1200							9		5	4			
IBM 360/20							26		5	19	1		

V. Degree Programs in Computer Science and Related Areas by Level and Number of Students Being Trained

Sample values and population estimates are presented for each stratum and groups of strata containing a sufficient amount of information to warrant publication.

The Business Data Processing line for stratum 1 2 2 is read as follows: 2 Associate and 1 Bachelor's degree programs were reported in the sample of 12 institutions. The sampling ratio is 4 (= 48 ÷ 12). Therefore, population estimates for the strata are 8 Associate and 4 Bachelor's degree programs.

Strata Identification:

CTL = Type of Control

1 = Public
2 = Private

TYPE = Type of Institution

0 = Semiprofessional School
1 = University
2 = Liberal Arts College
4 = Teachers College
5 = Independent Technological School
6 = Theological or Religious School
7 = Other Independent Professional School
8 = Junior College
9 = Technical Institution

LEVEL = Highest Level of Offering

1 = Two to Four Years beyond 12th Grade
2 = Bachelor's and/or First Professional Degree
3 = Master's and/or Second Professional Degree
4 = Doctor of Philosophy or Equivalent Degree
5 = Other

CTL 1 TYPE 1 LEVEL 4
SAMPLE SIZE 97 POP. SIZE 106
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.		BACH.		MAST.		DOCT.		ADDITIONAL LEVELS PLANNED ASSOC.		BACH.		MAST.		DOCT.	
COMPUTER SCIENCES			3	3	7	7	5	5	2	2	30	32	33	35	16	17
INFORMATION SCIENCES					2	2					1	1	2	2	4	4
BUSINESS DATA PROCESSING	1	1			2	2	1	1	4	4	2	2	1	1	1	1
SCIENTIFIC DATA PROCESSING									1	1						
SUBTOTAL	1	1	3	3	11	11	6	6	7	7	33	35	36	38	21	22
OPTIONS IN:																
MATHEMATICS			4	4	6	6	4	4			3	3	3	3		
ELECTRICAL ENGINEERING			3	3	6	6	4	4								
APPLIED SCIENCE					1	1							1	1	1	1
LINGUISTICS																
SYSTEMS & COMMUNIC SCIENCES			1	1	1	1	1	1								
QUANTITATIVE ANALYSIS																
SYSTEMS ENGINEERING			1	1	1	1	1	1								
MACHINE COMPUTERS																
SYSTEMS ANALYSIS					1	1										
ADMINISTRATIVE SCIENCE											1	1				
MANAGEMENT SCIENCE																
INFORMATION SYSTEMS											1	1	1	1		
INDUSTRIAL ENGINEERING			1	1	1	1	1	1								
STATISTICS																
SUBTOTAL			10	10	17	17	11	11			5	5	5	5	1	1
TOTAL	1	1	13	13	28	28	17	17	7	7	38	40	41	43	22	23

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS	382	416	4168	4543	347	378	2080	2267
OTHER MAJORS (*)	47241	51492	159035	173348	12465	13586	35230	38400
TOTAL	47623	51908	163203	177891	12812	13964	37310	40667

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 2 LEVEL 2
SAMPLE SIZE 12 POP. SIZE 48
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES					1	4		
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING	2	8	1	4				
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	2	8	1	4	1	4		
OPTIONS IN:								
MATHEMATICS			1	4				
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL			1	4				
TOTAL	2	8	2	8	1	4		

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	15	60	50	200		
OTHER MAJORS (*)	270	1080	845	3380		
TOTAL	285	1140	895	3580		

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 2 LEVEL 3
SAMPLE SIZE 18 POP. SIZE 60
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTIUN PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.		BACH.		MAST.		DOCT.		ADDITIONAL LEVELS PLANNED ASSOC.		BACH.		MAST.		DOCT.	
COMPUTER SCIENCES					1	3			1	3	6	19	2	6		
INFORMATION SCIENCES																
BUSINESS DATA PROCESSING											1	3				
SCIENTIFIC DATA PROCESSING																
SUBTOTAL					1	3			1	3	7	22	2	6		
OPTIONS IN:																
MATHEMATICS																
ELECTRICAL ENGINEERING																
APPLIED SCIENCE																
LINGUISTICS																
SYSTEMS & COMMUNIC SCIENCES																
QUANTITATIVE ANALYSIS																
SYSTEMS ENGINEERING											1	3				
MACHINE COMPUTERS																
SYSTEMS ANALYSIS																
ADMINISTRATIVE SCIENCE		1	3													
MANAGEMENT SCIENCE																
INFORMATION SYSTEMS																
INDUSTRIAL ENGINEERING																
STATISTICS																
SUBTOTAL		1	3								1	3				
TOTAL		1	3	1	3				1	3	8	25	2	6		

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS	30	99	302	1005	7	23	80	266
OTHER MAJORS (*)	2717	9047	6790	22610	170	566	615	2047
TOTAL	2747	9146	7092	23615	177	589	695	2313

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 2 LEVEL 4
SAMPLE SIZE 7 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES					1 1	2 2	2 2	
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING								
SCIENTIFIC DATA PROCESSING								
SUBTOTAL					1 1	2 2	2 2	
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL					1 1	2 2	2 2	

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS			180	180			65	65
OTHER MAJORS (*)	435	435	2250	2250	107	107	500	500
TOTAL	435	435	2430	2430	107	107	565	565

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 4 LEVEL 3
SAMPLE SIZE 33 POP. SIZE 116
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES						4	14	
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING	1	3			2	7		
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	1	3			2	7	4	14
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL	1	3			2	7	4	14

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS			30	105				
OTHER MAJORS (*)	1069	3752	4461	15658	329	1154	1160	4071
TOTAL	1069	3752	4491	15763	329	1154	1160	4071

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 4 LEVEL 4
SAMPLE SIZE 5 POP. SIZE 5
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES		1	1				1	1
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING								
SCIENTIFIC DATA PROCESSING								
SUBTOTAL		1	1				1	1
OPTIONS IN:								
MATHEMATICS		1	1					
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL		1	1					
TOTAL		2	2				1	1

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE				GRADUATE			
	1964-5		1968-9		1964-5		1968-9	
COMPUTER SCIENCE MAJORS	30	30	65	65	12	12	35	35
OTHER MAJORS (*)	450	450	2785	2785	286	286	3170	3170
TOTAL	480	480	2850	2850	298	298	3205	3205

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 5 LEVEL 3
SAMPLE SIZE 6 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES						2	2	
INFORMATION SCIENCES						1	1	
BUSINESS DATA PROCESSING						1	1	
SCIENTIFIC DATA PROCESSING								
SUBTOTAL						4	4	
OPTIONS IN:								
MATHEMATICS						1	1	
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL						1	1	
TOTAL						5	5	

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS			50	58				
OTHER MAJORS (*)	3080	3572	4850	5626	16	18	50	58
TOTAL	3080	3572	4900	5684	16	18	50	58

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 5 LEVEL 4
SAMPLE SIZE 6 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.		BACH.		MAST.		DOCT.		ADDITIONAL LEVELS PLANNED ASSOC.		BACH.		MAST.		DOCT.	
COMPUTER SCIENCES											1	1	1	1		
INFORMATION SCIENCES					1	1									1	1
BUSINESS DATA PROCESSING																
SCIENTIFIC DATA PROCESSING																
SUBTOTAL					1	1					1	1	1	1	1	1
OPTIONS IN:																
MATHEMATICS																
ELECTRICAL ENGINEERING																
APPLIED SCIENCE																
LINGUISTICS																
SYSTEMS & COMMUNIC SCIENCES																
QUANTITATIVE ANALYSIS																
SYSTEMS ENGINEERING																
MACHINE COMPUTERS																
SYSTEMS ANALYSIS																
ADMINISTRATIVE SCIENCE																
MANAGEMENT SCIENCE																
INFORMATION SYSTEMS																
INDUSTRIAL ENGINEERING																
STATISTICS																
SUBTOTAL																
TOTAL					1	1					1	1	1	1	1	1

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS			25	25	20	20	70	70
OTHER MAJORS (*)	1833	1833	5450	5450	400	400	1090	1090
TOTAL	1833	1833	5475	5475	420	420	1160	1160

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE 8 LEVEL 1
SAMPLE SIZE 71 POP. SIZE 400
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES					1	5		
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING	12	67			11	61		
SCIENTIFIC DATA PROCESSING					2	11		
SUBTOTAL	12	67			14	77		
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL	12	67			14	77		

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS	503	2831	1615	9092	14	78	18	101
OTHER MAJORS (*)	1166	6564	2295	12920	160	900	300	1689
TOTAL	1669	9395	3910	22012	174	978	318	1790

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE 1 LEVEL 3
SAMPLE SIZE 9 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES						1	1	2	2
INFORMATION SCIENCES									
BUSINESS DATA PROCESSING									
SCIENTIFIC DATA PROCESSING									
SUBTOTAL						1	1	2	2
OPTIONS IN:									
MATHEMATICS									
ELECTRICAL ENGINEERING									
APPLIED SCIENCE									
LINGUISTICS									
SYSTEMS & COMMUNIC SCIENCES									
QUANTITATIVE ANALYSIS									
SYSTEMS ENGINEERING									
MACHINE COMPUTERS									
SYSTEMS ANALYSIS									
ADMINISTRATIVE SCIENCE									
MANAGEMENT SCIENCE									
INFORMATION SYSTEMS									
INDUSTRIAL ENGINEERING									
STATISTICS									
SUBTOTAL									
TOTAL						1	1	2	2

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS			50	50			210	210
OTHER MAJORS (*)	720	720	2990	2990	43	43	460	460
TOTAL	720	720	3040	3040	43	43	670	670

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE 1 LEVEL 4
SAMPLE SIZE 61 POP. SIZE 65
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65								ADDITIONAL LEVELS PLANNED							
	ASSOC.		BACH.		MAST.		DOCT.		ASSOC.		BACH.		MAST.		DOCT.	
COMPUTER SCIENCES			4	4	6	6	7	7	1	1	6	6	8	8	8	8
INFORMATION SCIENCES			2	2	5	5	4	4					2	2	2	2
BUSINESS DATA PROCESSING	2	2	1	1	1	1					1	1				
SCIENTIFIC DATA PROCESSING																
SUBTOTAL	2	2	7	7	12	12	11	11	1	1	7	7	10	10	10	10
OPTIONS IN:																
MATHEMATICS			1	1					1	1	2	2	1	1	1	1
ELECTRICAL ENGINEERING			2	2	2	2	2	2			1	1	1	1	1	1
APPLIED SCIENCE																
LINGUISTICS					1	1	1	1								
SYSTEMS & COMMUNIC SCIENCES			1	1	1	1	2	2								
QUANTITATIVE ANALYSIS			1	1	2	2	1	1								
SYSTEMS ENGINEERING																
MACHINE COMPUTERS			1	1	1	1									1	1
SYSTEMS ANALYSIS																
ADMINISTRATIVE SCIENCE																
MANAGEMENT SCIENCE					2	2	1	1							1	1
INFORMATION SYSTEMS													1	1		
INDUSTRIAL ENGINEERING																
STATISTICS					1	1	1	1			1	1	1	1	1	1
SUBTOTAL			6	6	10	10	8	8	1	1	4	4	4	4	5	5
TOTAL	2	2	13	13	22	22	19	19	2	2	11	11	14	14	15	15

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE				GRADUATE			
	1964-5		1968-9		1964-5		1968-9	
COMPUTER SCIENCE MAJORS	292	309	960	1017	720	763	1945	2061
OTHER MAJORS (*)	17145	18173	46682	49482	9056	9599	21442	22728
TOTAL	17437	18482	47642	50499	9776	10362	23387	24789

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE 2 LEVEL 3
SAMPLE SIZE 55 POP. SIZE 172
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES	1	3					1	3
INFORMATION SCIENCES			1	3				
BUSINESS DATA PROCESSING								
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	1	3	1	3			1	3
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL	1	3	1	3			1	3

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS	100	312	240	748			5	15
OTHER MAJORS (*)	1421	4433	3947	12314	113	352	360	1123
TOTAL	1521	4745	4187	13062	113	352	365	1138

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE 2 LEVEL 4
SAMPLE SIZE 20 POP. SIZE 22
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65				ADDITIONAL LEVELS PLANNED							
	ASSOC.		BACH.		MAST.		DOCT.		ASSOC.		BACH.		MAST.		DOCT.	
COMPUTER SCIENCES											2	2	1	1		
INFORMATION SCIENCES					1	1									1	1
BUSINESS DATA PROCESSING											1	1				
SCIENTIFIC DATA PROCESSING																
SUBTOTAL					1	1					3	3	1	1	1	1
OPTIONS IN:																
MATHEMATICS					2	2	2	2			1	1				
ELECTRICAL ENGINEERING																
APPLIED SCIENCE																
LINGUISTICS																
SYSTEMS & COMMUNIC SCIENCES																
QUANTITATIVE ANALYSIS																
SYSTEMS ENGINEERING																
MACHINE COMPUTERS																
SYSTEMS ANALYSIS																
ADMINISTRATIVE SCIENCE																
MANAGEMENT SCIENCE																
INFORMATION SYSTEMS													1	1	1	1
INDUSTRIAL ENGINEERING																
STATISTICS																
SUBTOTAL					2	2	2	2			1	1	1	1	1	1
TOTAL					3	3	2	2			4	4	2	2	2	2

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE				GRADUATE			
	1964-5		1968-9		1964-5		1968-9	
COMPUTER SCIENCE MAJORS			26	28	14	15	54	59
OTHER MAJORS (*)	2021	2223	6175	6792	346	380	937	1030
TOTAL	2021	2223	6201	6820	360	395	991	1089

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE 5 LEVEL 4
SAMPLE SIZE 7 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.		BACH.		MAST.		DOCT.		ADDITIONAL LEVELS PLANNED ASSOC.		BACH.		MAST.		DOCT.	
COMPUTER SCIENCES					1	1									1	1
INFORMATION SCIENCES													1	1	1	1
BUSINESS DATA PROCESSING			1	1												
SCIENTIFIC DATA PROCESSING																
SUBTOTAL			1	1	1	1							1	1	2	2
OPTIONS IN:																
MATHEMATICS																
ELECTRICAL ENGINEERING																
APPLIED SCIENCE																
LINGUISTICS																
SYSTEMS & COMMUNIC SCIENCES																
QUANTITATIVE ANALYSIS																
SYSTEMS ENGINEERING																
MACHINE COMPUTERS																
SYSTEMS ANALYSIS																
ADMINISTRATIVE SCIENCE																
MANAGEMENT SCIENCE																
INFORMATION SYSTEMS																
INDUSTRIAL ENGINEERING																
STATISTICS																
SUBTOTAL																
TOTAL			1	1	1	1							1	1	2	2

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5		1968-9		GRADUATE 1964-5		1968-9	
COMPUTER SCIENCE MAJORS	35	44	100	128	20	25	70	89
OTHER MAJORS (*)	6495	8313	12200	15616	415	531	1450	1856
TOTAL	6530	8357	12300	15744	435	556	1520	1945

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE X LEVEL 1
COMBINED SAMPLE SIZE 82 POP. SIZE 428
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES								
INFORMATION SCIENCES					5			
BUSINESS DATA PROCESSING		69				61		
SCIENTIFIC DATA PROCESSING						11		
SUBTOTAL		69				77		
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL		69				77		

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	2968	9454	78	101
OTHER MAJORS (*)	6839	14920	1000	1839
TOTAL	9807	24374	1078	1940

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE X LEVEL 2
COMBINED SAMPLE SIZE 27 POP. SIZE 92
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES					4			
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING	8	4						
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	8	4			4			
OPTIONS IN:								
MATHEMATICS		4						
ELECTRICAL ENGINEERING						1		
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL		4				1		
TOTAL	8	8			4	1		

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	60	200		
OTHER MAJORS (*)	1569	4391		
TOTAL	1629	4591		

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE X LEVEL 3
COMBINED SAMPLE SIZE 62 POP. SIZE 188
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES			3		3	35	6	
INFORMATION SCIENCES						1		
BUSINESS DATA PROCESSING	3				8	4		
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	3		3		11	40	6	
OPTIONS IN:								
MATHEMATICS						1		
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING						3		
MACHINE COMPUTERS								
SYSTEMS ANALYSIS		1						
ADMINISTRATIVE SCIENCE		3						
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL		4				4		
TOTAL	3	4	3		11	44	6	

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	199	1768	23	306
OTHER MAJORS (*)	17001	45869	1828	6786
TOTAL	17200	47637	1851	7092

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 1 TYPE X LEVEL 4
COMBINED SAMPLE SIZE 123 POP. SIZE 132
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES		4	7	5	3	36	39	17
INFORMATION SCIENCES			3			1	2	5
BUSINESS DATA PROCESSING	1		2	1	4	2	1	1
SCIENTIFIC DATA PROCESSING					2			
SUBTOTAL	1	4	12	6	9	39	42	23
OPTIONS IN:								
MATHEMATICS		5	6	4		3	3	
ELECTRICAL ENGINEERING		3	6	4				
APPLIED SCIENCE			1				1	1
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES		1	1	1				
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING		1	1	1				
MACHINE COMPUTERS								
SYSTEMS ANALYSIS			1					
ADMINISTRATIVE SCIENCE						1		
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS						1	1	
INDUSTRIAL ENGINEERING		1	1	1				
STATISTICS								
SUBTOTAL		11	17	11		5	5	1
TOTAL	1	15	29	17	9	44	47	24

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	446	4820	410	2442
OTHER MAJORS (*)	54310	184507	14434	43343
TOTAL	54756	189327	14844	45785

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE X LEVEL 1
COMBINED SAMPLE SIZE 59 POP. SIZE 260
PUPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES					1			
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING								
SCIENTIFIC DATA PROCESSING								
SUBTOTAL					1			
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL					1			

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS				
OTHER MAJORS (*)		268		
TOTAL		268		

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE X LEVEL 2
COMBINED SAMPLE SIZE 115 POP. SIZE 702
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES								
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING								
SCIENTIFIC DATA PROCESSING								
SUBTOTAL								
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL								

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS				
OTHER MAJORS (*)	3513	8876	282	783
TOTAL	3513	8876	282	783

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE X LEVEL 3
COMBINED SAMPLE SIZE 96 POP. SIZE 278
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES		3				2	5	
INFORMATION SCIENCES			3					
BUSINESS DATA PROCESSING					1	1		
SCIENTIFIC DATA PROCESSING								
SUBTOTAL		3	3		1	3	5	
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE							1	
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL							1	
TOTAL		3	3		1	3	6	

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	312	1392		260
OTHER MAJORS (*)	6551	18047	466	1953
TOTAL	6863	19439	466	2213

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL 2 TYPE X LEVEL 4
COMBINED SAMPLE SIZE 104 POP. SIZE 137
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES		4	7	7	1	8	9	9
INFORMATION SCIENCES		2	6	4			3	4
BUSINESS DATA PROCESSING	2	2	1			2		
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	2	8	14	11	1	10	12	13
OPTIONS IN:								
MATHEMATICS		1	2	2	1	3	1	1
ELECTRICAL ENGINEERING		2	2	2		1	1	1
APPLIED SCIENCE								
LINGUISTICS			1	1				
SYSTEMS & COMMUNIC SCIENCES		1	1	2				
QUANTITATIVE ANALYSIS		1	2	1				
SYSTEMS ENGINEERING								
MACHINE COMPUTERS		1	1					1
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE			2	1				1
INFORMATION SYSTEMS							2	1
INDUSTRIAL ENGINEERING								
STATISTICS			1	1		1	1	1
SUBTOTAL		6	12	10	1	5	5	6
TOTAL	2	14	26	21	2	15	17	19

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	353	1173	803	2209
OTHER MAJORS (*)	28709	71890	10790	26089
TOTAL	29062	73063	11593	28298

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL X TYPE X LEVEL 1
COMBINED SAMPLE SIZE 141 POP. SIZE 688
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES					6			
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING	69				61			
SCIENTIFIC DATA PROCESSING					11			
SUBTOTAL	69				78			
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING								
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL								
TOTAL	69				78			

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	2968	9454	78	101
OTHER MAJORS (*)	6839	15188	1000	1839
TOTAL	9807	24642	1078	1940

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL X TYPE X LEVEL 2
COMBINED SAMPLE SIZE 142 POP. SIZE 794
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES					4			
INFORMATION SCIENCES								
BUSINESS DATA PROCESSING	8	4						
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	8	4			4			
OPTIONS IN:								
MATHEMATICS		4						
ELECTRICAL ENGINEERING						1		
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS								
SYSTEMS ANALYSIS								
ADMINISTRATIVE SCIENCE								
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS								
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL		4				1		
TOTAL	8	8			4	1		

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	60	200		
OTHER MAJORS (*)	5082	13267	282	783
TOTAL	5142	13467	282	783

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

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CTL X TYPE X LEVEL 3

COMBINED SAMPLE SIZE 158 POP. SIZE 466

POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES		3	3		3	37	11	
INFORMATION SCIENCES			3			1.		
BUSINESS DATA PROCESSING	3				9	5		
SCIENTIFIC DATA PROCESSING								
SUBTOTAL	3	3	6		12	43	11	
OPTIONS IN:								
MATHEMATICS								
ELECTRICAL ENGINEERING						1		
APPLIED SCIENCE								
LINGUISTICS								
SYSTEMS & COMMUNIC SCIENCES								
QUANTITATIVE ANALYSIS								
SYSTEMS ENGINEERING								
MACHINE COMPUTERS						3		
SYSTEMS ANALYSIS		1						
ADMINISTRATIVE SCIENCE		3						
MANAGEMENT SCIENCE								
INFORMATION SYSTEMS							1	
INDUSTRIAL ENGINEERING								
STATISTICS								
SUBTOTAL		4				4	1	
TOTAL	3	7	6		12	47	12	

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	UNDERGRADUATE 1968-9	GRADUATE 1964-5	GRADUATE 1968-9
COMPUTER SCIENCE MAJORS	511	3160	23	566
OTHER MAJORS (*)	23552	63916	2294	8739
TOTAL	24063	67076	2317	9305

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL X TYPE X LEVEL 4
COMBINED SAMPLE SIZE 227 POP. SIZE 269
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES		8	14	12	4	44	48	26
INFORMATION SCIENCES		2	9	4		1	5	9
BUSINESS DATA PROCESSING	3	2	3	1	4	4	1	1
SCIENTIFIC DATA PROCESSING					2			
SUBTOTAL	3	12	26	17	10	49	54	36
OPTIONS IN:								
MATHEMATICS		6	8	6	1	6	4	1
ELECTRICAL ENGINEERING		5	8	6		1	1	1
APPLIED SCIENCE			1				1	1
LINGUISTICS			1	1				
SYSTEMS & COMMUNIC SCIENCES		2	2	3				
QUANTITATIVE ANALYSIS		1	2	1				
SYSTEMS ENGINEERING		1	1	1				
MACHINE COMPUTERS		1	1					1
SYSTEMS ANALYSIS			1					
ADMINISTRATIVE SCIENCE						1		
MANAGEMENT SCIENCE			2	1				1
INFORMATION SYSTEMS						1	3	1
INDUSTRIAL ENGINEERING		1	1	1				
STATISTICS			1	1		1	1	1
SUBTOTAL		17	29	21	1	10	10	7
TOTAL	3	29	55	38	11	59	64	43

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	799	5993	1213	4651
OTHER MAJORS (*)	83019	256397	25224	69432
TOTAL	83818	262390	26437	74083

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE

CTL X TYPE X LEVEL X
COMBINED SAMPLE SIZE 669 POP. SIZE 2219
POPULATION ESTIMATES

ITEM I-B(1,2) COMPUTER SCIENCE INSTRUCTION PROGRAMS

NAME OF PROGRAM (USUALLY DEPT.)	LEVEL OFFERED 64-65 ASSOC.	BACH.	MAST.	DOCT.	ADDITIONAL LEVELS PLANNED ASSOC.	BACH.	MAST.	DOCT.
COMPUTER SCIENCES		11	17	12	17	81	59	26
INFORMATION SCIENCES		2	12	4		2	5	9
BUSINESS DATA PROCESSING	83	6	3	1	74	9	1	1
SCIENTIFIC DATA PROCESSING					13			
SUBTOTAL	83	19	32	17	104	92	65	36
OPTIONS IN:								
MATHEMATICS		10	8	6	1	7	4	1
ELECTRICAL ENGINEERING		5	8	6		2	1	1
APPLIED SCIENCE			1				1	1
LINGUISTICS			1	1				
SYSTEMS & COMMUNIC SCIENCES		2	2	3				
QUANTITATIVE ANALYSIS		1	2	1				
SYSTEMS ENGINEERING		1	1	1		3		
MACHINE COMPUTERS		1	1					1
SYSTEMS ANALYSIS		1	1					
ADMINISTRATIVE SCIENCE		3				1		
MANAGEMENT SCIENCE			2	1			1	1
INFORMATION SYSTEMS						1	3	1
INDUSTRIAL ENGINEERING		1	1	1				
STATISTICS			1	1		1	1	1
SUBTOTAL		25	29	21	1	15	11	7
TOTAL	83	44	61	38	105	107	76	43

ITEM I-B(3) NO. STUDENTS TRAINED TO USE COMPUTERS:

	UNDERGRADUATE 1964-5	1968-9	GRADUATE 1964-5	1968-9
COMPUTER SCIENCE MAJORS	4338	18807	1314	5318
OTHER MAJORS (*)	119092	350168	28800	80793
TOTAL	123430	368975	30114	86111

* AT LEAST SOME SKILL IN USING ONE PROGRAMMING LANGUAGE.

VI-A. Estimates by Stratum and Groups of Strata for Sources of Funds, Operating Expenditures by Cost Item, Number of Personnel, and Capital Expenditures. (Items II-IV of the Questionnaire)

For each stratum, each grouping of strata by Type of Control and Highest Level of Offering, and all institutions (Group XXX), the entries of Items II-IV of the questionnaire are summarized and the corresponding population estimates given. Sample values are also presented in stratum summaries. For stratum estimates the sample values are presented first and the corresponding population estimates follow to their right on the same line. All dollar amounts are in thousands of dollars and the numbers of personnel are complete as shown.

e.g. For FY65 the 106 public universities offering the doctorate (stratum 1 1 4, Page VI-A-3)spent an estimated $42,099,000 for computers for research and instructional uses. They have estimated that they will spend $112,627,000 in FY69 for research and instructional uses. These institutions employed an estimated 2051 persons in such activities during FY65 and expect to employ 3949 during FY69. Capital expenditures for computers in research and instruction are estimated to be $30,983,000 for FY68 and $29,667,000 for FY69.

Strata Identification:

CTL = Type of Control

1 = Public
2 = Private

TYPE = Type of Institution

0 = Semiprofessional School
1 = University
2 = Liberal Arts College
4 = Teachers College
5 = Independent Technological School
6 = Theological or Religious School
7 = Other Independent Professional School
8 = Junior College
9 = Technical Institution

LEVEL = Highest Level of Offering

1 = Two to Four Years Beyond 12th Grade
2 = Bachelor's and/or First Professional Degree
3 = Master's and/or Second Professional Degree
4 = Doctor of Philosophy or Equivalent Degree
5 = Other

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GTL 1 TYPE 1 LEVEL 3
SAMPLE SIZE 4 POP. SIZE 4
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.								
2.OTHER	4	4			4	4	100	100
TOTAL FED GOVT	4	4			4	4	100	100
B.INSTITUTION	308	308	13	13	321	321	1725	1725
C. OTHER	3	3			3	3	20	20
D. TOTAL	315	315	13	13	328	328	1845	1845

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					111	111	954	954
2. BUILDING SPACE					2	2	14	14
3. OTHER MAINTENANCE								
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	3	3	12	12	15	15	103	103
4B. ADMIN AND OTHER PROFESSIONAL	5	5	7	7	42	42	69	69
4C. OTHER	25	25	40	40	70	70	164	164
4 TOTAL SALARIES AND WAGES	33	33	59	59	127	127	336	336
5. OFF-CAMPUS COMPUTING SERVICE					22	22	32	32
6. OTHER DIRECT COSTS					50	50	244	244
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					312	312	1580	1580
TOTAL								

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	12	12			1	1	13	13
1965-66	15	15			4	4	19	19
1966-67	132	132	18	18	1	1	151	151
1967-68	102	102			1	1	103	103
1968-69			255	255	11	11	266	266

CTL 1 TYPE 1 LEVEL 4
SAMPLE SIZE 97 POP. SIZE 106
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	4402	4810	2923	3194	7325	8004	25595	27969
2.OTHER	5809	6347	1949	2129	7758	8477	16812	18371
TOTAL FED GOVT	10211	11158	4872	5324	15083	16482	42407	46341
B.INSTITUTION	15110	16511	4894	5348	20004	21860	51322	56083
C. OTHER	2615	2857	823	899	3438	3756	9336	10202
D. TOTAL	27936	30528	10589	11571	38525	42099	103065	112627

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					9369	10238	32729	35765
2. BUILDING SPACE					352	384	1127	1231
3. OTHER MAINTENANCE					981	1072	1623	1773
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	566	618	1278	1396	3948	4314	10590	11572
4B. ADMIN AND OTHER PROFESSIONAL	325	355	633	691	3220	3518	7584	8287
4C. OTHER	986	1077	1703	1861	4125	4507	7959	8697
4 TOTAL SALARIES AND WAGES	1877	2051	3614	3949	11293	12340	26133	28557
5. OFF-CAMPUS COMPUTING SERVICE					156	170	41	44
6. OTHER DIRECT COSTS					2627	2870	5997	6553
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					3157	3449	8399	9178
TOTAL					27935	30526	76049	83105

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	7769	8489	1344	1468	362	395	9475	10354
1965-66	7121	7781	5047	5515	332	362	12500	13659
1966-67	11891	12994	6817	7449	634	692	19342	21136
1967-68	9003	9838	18121	19802	1229	1343	28353	30983
1968-69	16861	18425	8380	9157	1908	2085	27149	29667

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GTL 1 TYPE 2 LEVEL 2
SAMPLE SIZE 12 POP. SIZE 48
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.							50	200
2.OTHER								
TOTAL FED GOVT							50	200
B.INSTITUTION	100	400	36	144	136	544	450	1800
C. OTHER	34	136			34	136	25	100
D. TOTAL	134	536	36	144	170	680	525	2100

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					54	216	167	668
2. BUILDING SPACE								
3. OTHER MAINTENANCE							3	12
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	2	8	5	20	15	60	27	108
4B. ADMIN AND OTHER PROFESSIONAL	3	12	6	24	22	88	45	180
4C. OTHER	5	20	8	32	17	68	28	112
4 TOTAL SALARIES AND WAGES	10	40	19	76	54	216	100	400
5. OFF-CAMPUS COMPUTING SERVICE								
6. OTHER DIRECT COSTS					3	12	9	36
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					23	92	54	216
TOTAL					134	536	333	1332

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	30	120			6	24	36	144
1965-66	85	340			11	44	96	384
1966-67	30	120			3	12	33	132
1967-68	85	340			10	40	95	380
1968-69	180	720			12	48	192	768

CTL 1 TYPE 2 LEVEL 3
SAMPLE SIZE 18 POP. SIZE 60
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	42	139			42	139	250	833
2.OTHER							65	216
TOTAL FED GOVT	42	139			42	139	315	1049
B.INSTITUTION	919	3063	26	86	945	3149	3226	10753
C. OTHER	40	133			40	133	78	259
D. TOTAL	1001	3336	26	86	1027	3423	3619	12063

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					333	1109	1088	3626
2. BUILDING SPACE					3	9	177	589
3. OTHER MAINTENANCE					6	19	13	43
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	6	19	33	109	56	186	262	873
4B. ADMIN AND OTHER PROFESSIONAL	9	29	20	66	96	319	229	763
4C. OTHER	30	99	58	193	120	399	283	943
4 TOTAL SALARIES AND WAGES	45	149	111	369	272	906	774	2579
5. OFF-CAMPUS COMPUTING SERVICE								
6. OTHER DIRECT COSTS					33	109	72	239
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					142	473	428	1426
TOTAL					789	2629	2552	8506

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	98	326	131	436	11	36	240	799
1965-66	25	83	8	26	11	36	44	146
1966-67	69	229	258	859	30	99	357	1189
1967-68	87	289	50	166	32	106	169	563
1968-69	735	2449	285	949	49	163	1069	3563

CTL 1 TYPE 2 LEVEL 4
SAMPLE SIZE 7 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	10	10			10	10	440	440
2.OTHER							220	220
TOTAL FED GOVT	10	10			10	10	660	660
B.INSTITUTION	920	920	35	35	955	955	3454	3454
C. OTHER	27	27			27	27	410	410
D. TOTAL	957	957	35	35	992	992	4524	4524

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					426	426	2320	2320
2. BUILDING SPACE					55	55	192	192
3. OTHER MAINTENANCE					13	13	37	37
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	9	9	42	42	91	91	396	396
4B. ADMIN AND OTHER PROFESSIONAL	13	13	40	40	134	134	468	468
4C. OTHER	20	20	57	57	100	100	342	342
4 TOTAL SALARIES AND WAGES	42	42	139	139	325	325	1206	1206
5. OFF-CAMPUS COMPUTING SERVICE					1	1	30	30
6. OTHER DIRECT COSTS					80	80	261	261
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					57	57	316	316
TOTAL					957	957	4362	4362

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65					5	5	5	.5
1965-66					20	20	20	20
1966-67	20	20	300	300	23	23	343	343
1967-68	310	310	250	250	137	137	697	697
1968-69	90	90	20	20	52	52	162	162

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE 4 LEVEL 2
SAMPLE SIZE 9 POP. SIZE 37
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.								
2.OTHER								
TOTAL FED GOVT								
B.INSTITUTION	1	4			1	4	80	328
C. OTHER								
D. TOTAL	1	4			1	4	80	328

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		REPORTING PERIOD		1968-69 PROJECTED	
	1968-69 PROJ.					
1. EQUIPMENT RENTALS					35	143
2. BUILDING SPACE						
3. OTHER MAINTENANCE						
4. SALARIES AND WAGES						
4A. SYSTEMS AND UTILITY PROG.						
4B. ADMIN AND OTHER PROFESSIONAL	1	4			15	61
4C. OTHER	2	8			14	57
4 TOTAL SALARIES AND WAGES	3	12			29	119
5. OFF-CAMPUS COMPUTING SERVICE			1	4	2	8
6. OTHER DIRECT COSTS						
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					14	57
TOTAL			1	4	80	328

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65								
1965-66								
1966-67					1	4	1	4
1967-68								
1968-69								

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE 4 LEVEL 3
SAMPLE SIZE 33 POP. SIZE 116
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	22	77	27	94	49	172	213	748
2.OTHER							26	91
TOTAL FED GOVT	22	77	27	94	49	172	239	840
B.INSTITUTION	284	998	65	228	349	1226	1245	4376
C. OTHER	33	116			33	116	157	551
D. TOTAL	339	1191	92	323	431	1515	1641	5768

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					161	565	544	1912
2. BUILDING SPACE					3	10	164	576
3. OTHER MAINTENANCE					13	45	27	94
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	4	14	21	73	24	84	151	530
4B. ADMIN AND OTHER PROFESSIONAL	10	35	22	77	75	263	182	639
4C. OTHER	11	38	46	161	36	126	141	495
4 TOTAL SALARIES AND WAGES	25	87	89	312	135	474	474	1666
5. OFF-CAMPUS COMPUTING SERVICE					1	3	1	3
6. OTHER DIRECT COSTS					22	77	75	263
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					46	161	136	478
TOTAL					381	1339	1421	4995

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	10	35	30	105	10	35	50	175
1965-66	31	108			6	21	37	130
1966-67	64	224	5	17	12	42	81	284
1967-68	81	284	2	7	16	56	99	348
1968-69	111	390	58	203	21	73	190	667

CTL 1 TYPE 4 LEVEL 4
SAMPLE SIZE 5 POP. SIZE 5
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.							15	15
2.OTHER								
TOTAL FED GOVT							15	15
B.INSTITUTION	166	166	17	17	183	183	1095	1095
C. OTHER								
D. TOTAL	166	166	17	17	183	183	1110	1110

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					61	61	635	635
2. BUILDING SPACE					23	23	23	23
3. OTHER MAINTENANCE								
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	4	4	14	14	12	12	67	67
4B. ADMIN AND OTHER PROFESSIONAL	3	3	8	8	36	36	153	153
4C. OTHER	3	3	17	17	10	10	33	33
4 TOTAL SALARIES AND WAGES	10	10	39	39	58	58	253	253
5. OFF-CAMPUS COMPUTING SERVICE								
6. OTHER DIRECT COSTS					8	8	40	40
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					25	25	116	116
TOTAL					175	175	1067	1067

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	1	1	3	3	13	13	17	17
1965-66					9	9	9	9
1966-67	8	8			13	13	21	21
1967-68	16	16	56	56	27	27	99	99
1968-69	20	20	2	2	21	21	43	43

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 5 LEVEL 2
SAMPLE SIZE 5 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.			48	57	48	57		
2.OTHER								
TOTAL FED GOVT			48	57	48	57		
B.INSTITUTION	49	58	3	3	52	62	152	182
C. OTHER			52	62	52	62		
D. TOTAL	49	58	103	123	152	182	152	182

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					24	28	53	63
2. BUILDING SPACE								
3. OTHER MAINTENANCE								
4. SALARIES AND WAGES					1	1	7	8
4A. SYSTEMS AND UTILITY PROG.			2	2				
4B. ADMIN AND OTHER PROFESSIONAL	3	3	5	6	7	8	23	27
4C. OTHER	2	2	6	7	7	8	24	28
4 TOTAL SALARIES AND WAGES	5	6	13	15	14	16	22	26
5. OFF-CAMPUS COMPUTING SERVICE							69	82
6. OTHER DIRECT COSTS					4	4	8	9
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					6	7	13	15
TOTAL					49	58	150	180

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	100	120			3	3	103	123
1965-66					2	2	2	2
1966-67	4	4	105	126	16	19	125	150
1967-68					2	2	2	2
1968-69					2	2	2	2

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 5 LEVEL 3
SAMPLE SIZE 6 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.							104	121
2.OTHER	40	46			40	46	71	82
TOTAL FED GOVT	40	46			40	46	175	204
B.INSTITUTION	84	98	2	2	86	100	356	415
C. OTHER			32	37	32	37	22	25
D. TOTAL	124	144	34	39	158	184	553	645

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					33	38	324	378
2. BUILDING SPACE								
3. OTHER MAINTENANCE					18	21	5	5
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	3	3	10	11	13	15	65	75
4B. ADMIN AND OTHER PROFESSIONAL	2	2	5	5	16	18	61	71
4C. OTHER	5	5	15	17	19	22	72	84
4 TOTAL SALARIES AND WAGES	10	11	30	35	48	56	198	231
5. OFF-CAMPUS COMPUTING SERVICE					2	2	2	2
6. OTHER DIRECT COSTS					4	4	23	26
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					19	22	95	110
TOTAL					124	144	647	754

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	32	37			2	2	34	39
1965-66					1	1	1	1
1966-67			340	396	86	100	426	497
1967-68					1	1	1	1
1968-69					1	1	1	1

GTL 1 TYPE 5 LEVEL 4
SAMPLE SIZE 6 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	63	63			63	63	610	610
2.OTHER	221	221			221	221	470	470
TOTAL FED GOVT	284	284			284	284	1080	1080
B.INSTITUTION	362	362	42	42	404	404	4316	4316
C. OTHER	314	314			314	314	471	471
D. TOTAL	960	960	42	42	1002	1002	5867	5867

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					177	177	1290	1290
2. BUILDING SPACE					5	5	5	5
3. OTHER MAINTENANCE					46	46	87	87
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	6	6	23	23	45	45	253	253
4B. ADMIN AND OTHER PROFESSIONAL	33	33	61	61	350	350	699	699
4C. OTHER	29	29	95	95	135	135	419	419
4 TOTAL SALARIES AND WAGES	68	68	179	179	530	530	1371	1371
5. OFF-CAMPUS COMPUTING SERVICE					1	1	35	35
6. OTHER DIRECT COSTS					43	43	79	79
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					158	158	480	480
TOTAL					960	960	3347	3347

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	2	2	33	33	7	7	42	42
1965-66	470	470	1	1	18	18	489	489
1966-67	125	125			34	34	159	159
1967-68	1411	1411	255	255	17	17	1683	1683
1968-69	1492	1492	1001	1001	27	27	2520	2520

GTL 1 TYPE 7 LEVEL 4
SAMPLE SIZE 8 POP. SIZE 8
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	144	144	49	49	193	193	630	630
2.OTHER	100	100			100	100	241	241
TOTAL FED GOVT	244	244	49	49	293	293	871	871
B.INSTITUTION	321	321	32	32	353	353	1840	1840
C. OTHER	1	1			1	1	5	5
D. TOTAL	566	566	81	81	647	647	2716	2716

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					175	175	582	582
2. BUILDING SPACE					2	2	2	2
3. OTHER MAINTENANCE					2	2	2	2
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	13	13	31	31	96	96	241	241
4B. ADMIN AND OTHER PROFESSIONAL	7	7	18	18	54	54	183	183
4C. OTHER	12	12	25	25	68	68	168	168
4 TOTAL SALARIES AND WAGES	32	32	74	74	218	218	592	592
5. OFF-CAMPUS COMPUTING SERVICE					85	85	125	125
6. OTHER DIRECT COSTS					13	13	27	27
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					71	71	198	198
TOTAL					566	566	1528	1528

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	29	29	2	2	12	12	43	43
1965-66	81	81	7	7	1	1	89	89
1966-67	348	348	3	3	6	6	357	357
1967-68	133	133	3	3	1	1	137	137
1968-69	383	383	799	799	6	6	1188	1188

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 8 LEVEL 1
SAMPLE SIZE 71 POP. SIZE 400
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	82	461	66	371	148	833	280	1577
2.OTHER							45	253
TOTAL FED GOVT	82	461	66	371	148	833	325	1830
B.INSTITUTION	496	2794	308	1735	804	4529	1829	10304
C. OTHER	69	388	200	1126	269	1515	300	1690
D. TOTAL	647	3645	574	3233	1221	6878	2454	13825

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					164	923	445	2507
2. BUILDING SPACE					11	61	117	659
3. OTHER MAINTENANCE					21	118	55	309
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	9	50	22	123	52	292	144	811
4B. ADMIN AND OTHER PROFESSIONAL	22	123	50	281	194	1092	452	2546
4C. OTHER	18	101	54	304	60	338	153	861
4 TOTAL SALARIES AND WAGES	49	276	126	709	306	1723	749	4219
5. OFF-CAMPUS COMPUTING SERVICE								
6. OTHER DIRECT COSTS					45	253	105	591
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					100	563	241	1357
TOTAL					647	3645	1712	9645

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	512	2884	24	135	47	264	583	3284
1965-66	216	1216	11	61	43	242	270	1521
1966-67	407	2292	26	146	35	197	468	2636
1967-68	297	1673	8	45	34	191	339	1909
1968-69	686	3864	54	304	63	354	803	4523

CTL 1 TYPE 9 LEVEL 1
SAMPLE SIZE 8 POP. SIZE 20
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	7	17	150	375	157	392	9	22
2.OTHER								
TOTAL FED GOVT	7	17	150	375	157	392	9	22
B.INSTITUTION	59	147	40	100	99	247	146	365
C. OTHER								
D. TOTAL	66	165	190	475	256	640	155	387

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					8	20	21	52
2. BUILDING SPACE					4	10	5	12
3. OTHER MAINTENANCE					6	15	10	25
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.							2	5
4B. ADMIN. AND OTHER PROFESSIONAL	3	7	7	17	23	57	51	127
4C. OTHER			2	5	2	5	9	22
4 TOTAL SALARIES AND WAGES	3	7	9	22	25	62	62	155
5. OFF-CAMPUS COMPUTING SERVICE							10	25
6. OTHER DIRECT COSTS					3	7	6	15
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					20	50	26	65
TOTAL					66	165	140	350

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	150	375	40	100			190	475
1965-66	43	107	4	10	2	5	49	122
1966-67	3	7	4	10			7	17
1967-68								
1968-69	5	12	5	12	5	12	15	37

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 1 LEVEL 3
SAMPLE SIZE 9 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	85	85			85	85	185	185
2.OTHER	60	60			60	60	97	97
TOTAL FED GOVT	145	145			145	145	282	282
B.INSTITUTION	178	178	38	38	216	216	1262	1262
C. OTHER	35	35			35	35	80	80
D. TOTAL	358	358	38	38	396	396	1624	1624

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					105	105	197	197
2. BUILDING SPACE					6	6	13	13
3. OTHER MAINTENANCE					7	7	37	37
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	7	7	18	18	37	37	116	116
4B. ADMIN AND OTHER PROFESSIONAL	9	9	19	19	74	74	145	145
4C. OTHER	19	19	36	36	47	47	110	110
4 TOTAL SALARIES AND WAGES	35	35	73	73	158	158	371	371
5. OFF-CAMPUS COMPUTING SERVICE					15	15	25	25
6. OTHER DIRECT COSTS					10	10	35	35
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					55	55	122	122
TOTAL					356	356	800	800

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	36	36	1	1	3	3	40	40
1965-66	83	83			7	7	90	90
1966-67	167	167	5	5	26	26	198	198
1967-68	117	117	305	305	55	55	477	477
1968-69	65	65	750	750	9	9	824	824

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 1 LEVEL 4
SAMPLE SIZE 61 POP. SIZE 65
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	10160	10826	2129	2268	12289	13094	22670	24156
2.OTHER	7385	7869	837	891	8222	8761	23111	24626
TOTAL FED GOVT	17545	18695	2966	3160	20511	21855	45781	48783
B.INSTITUTION	6217	6624	1753	1867	7970	8492	20753	22113
C. OTHER	2295	2445	2635	2807	4930	5253	7091	7555
D. TOTAL	26057	27765	7354	7836	33411	35601	73625	78452

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1966-69 PROJECTED	
1. EQUIPMENT RENTALS					9591	10219	28386	30247
2. BUILDING SPACE					796	848	1283	1367
3. OTHER MAINTENANCE					864	920	1602	1707
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	427	455	851	906	3303	3519	7595	8093
4B. ADMIN AND OTHER PROFESSIONAL	314	334	552	588	2899	3089	5869	6253
4C. OTHER	607	646	956	1018	2802	2985	5216	5558
4 TOTAL SALARIES AND WAGES	1348	1436	2359	2513	9004	9594	18680	19904
5. OFF-CAMPUS COMPUTING SERVICE					247	263	175	186
6. OTHER DIRECT COSTS					2595	2765	4416	4705
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					2982	3177	5919	6307
TOTAL					26079	27789	60461	64425

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	3160	3367	1483	1580	256	272	4899	5220
1965-66	5384	5737	2311	2462	365	388	8060	8588
1966-67	7969	8491	4081	4348	577	614	12627	13455
1967-68	3476	3703	4767	5079	393	418	8636	9202
1968-69	7191	7662	5412	5766	561	597	13164	14027

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 2 LEVEL 2
SAMPLE SIZE 81 POP. SIZE 508
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.			44	275	44	275	170	1066
2.OTHER	1	6			1	6		
TOTAL FED GOVT	1	6	44	275	45	282	170	1066
B.INSTITUTION	177	1110	243	1524	420	2634	440	2759
C. OTHER	1	6	60	376	61	382	100	627
D. TOTAL	179	1122	347	2176	526	3298	710	4452

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					43	269	137	859
2. BUILDING SPACE					10	62		
3. OTHER MAINTENANCE					8	50	16	100
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	2	12	6	37	20	125	41	257
4B. ADMIN AND OTHER PROFESSIONAL	3	18	8	50	26	163	72	451
4C. OTHER	9	56	24	150	32	200	70	439
4 TOTAL SALARIES AND WAGES	14	87	38	238	78	489	183	1147
5. OFF-CAMPUS COMPUTING SERVICE							4	25
6. OTHER DIRECT COSTS					21	131	34	213
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					19	119	62	388
TOTAL					179	1122	436	2734

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	280	1756	42	263	25	156	347	2176
1965-66			2	12	1	6	3	18
1966-67	45	282			14	87	59	370
1967-68	256	1605	40	250	13	81	309	1937
1968-69	270	1693			4	25	274	1718

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 2 LEVEL 3
SAMPLE SIZE 55 POP. SIZE 172
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	18	56	40	125	58	181	449	1404
2.OTHER	4	12			4	12	126	394
TOTAL FED GOVT	22	68	40	125	62	193	575	1798
B.INSTITUTION	466	1457	50	156	516	1613	3487	10904
C. OTHER	119	372	152	475	271	847	757	2367
D. TOTAL	607	1898	242	756	849	2655	4819	15070

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					344	1075	989	3092
2. BUILDING SPACE					3	9	5	15
3. OTHER MAINTENANCE					8	25	16	50
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	12	37	37	115	58	181	319	997
4B. ADMIN AND OTHER PROFESSIONAL	12	37	35	109	82	256	343	1072
4C. OTHER	28	87	54	168	102	318	229	716
4 TOTAL SALARIES AND WAGES	52	162	126	394	242	756	891	2786
5. OFF-CAMPUS COMPUTING SERVICE					7	21	20	62
6. OTHER DIRECT COSTS					49	153	158	494
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					117	365	424	1325
TOTAL					770	2408	2503	7827

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	63	197	19	59	17	53	99	309
1965-66	97	303	32	100	13	40	142	444
1966-67	475	1485	48	150	24	75	547	1710
1967-68	258	806			12	37	270	844
1968-69	1736	5428	430	1344	67	209	2233	6983

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 2 LEVEL 4
SAMPLE SIZE 20 POP. SIZE 22
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	166	182	400	440	566	622	527	579
2.OTHER	89	97			89	97	338	371
TOTAL FED GOVT	255	280	400	440	655	720	865	951
B.INSTITUTION	612	673	208	228	820	902	1906	2096
C. OTHER	71	78	140	154	211	232	256	281
D. TOTAL	938	1031	748	822	1686	1854	3027	3329

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					237	260	879	966
2. BUILDING SPACE					59	64	116	127
3. OTHER-MAINTENANCE					42	46	115	126
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	17	18	40	44	139	152	358	393
4B. ADMIN AND OTHER PROFESSIONAL	6	6	18	19	81	89	215	236
4C. OTHER	61	67	81	89	160	176	254	279
4 TOTAL SALARIES AND WAGES	84	92	139	152	380	418	827	909
5. OFF-CAMPUS COMPUTING SERVICE					3	3	85	93
6. OTHER DIRECT COSTS					79	86	158	173
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					138	151	363	399
TOTAL					938	1031	2543	2797

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	694	763	12	13	42	46	748	822
1965-66	44	48	26	28	13	14	83	91
1966-67	11	12	802	882	12	13	825	907
1967-68	142	156	109	119	21	23	272	299
1968-69	242	266	120	132	22	24	384	422

CTL 2 TYPE 4 LEVEL 3
SAMPLE SIZE 8 POP. SIZE 8
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.								
2.OTHER								
TOTAL FED GOVT								
B.INSTITUTION	78	78	9	9	87	87	116	116
C. OTHER								
D. TOTAL	78	78	9	9	87	87	116	116

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					30	30	40	40
2. BUILDING SPACE					4	4	4	4
3. OTHER MAINTENANCE					1	1	1	1
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	2	2	3	3	15	15	30	30
4B. ADMIN AND OTHER PROFESSIONAL								
4C. OTHER	2	2	3	3	8	8	12	12
4 TOTAL SALARIES AND WAGES	4	4	6	6	23	23	42	42
5. OFF-CAMPUS COMPUTING SERVICE					1	1	10	10
6. OTHER DIRECT COSTS					7	7	10	10
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					13	13	19	19
TOTAL					79	79	126	126

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65			4	4	5	5	9	9
1965-66								
1966-67								
1967-68			3	3	5	5	8	8
1968-69								

CTL 2 TYPE 5 LEVEL 2
SAMPLE SIZE 5 POP. SIZE 14
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.								
2.OTHER	19	53			19	53	31	86
TOTAL FED GOVT	19	53			19	53	31	86
B.INSTITUTION	23	64	4	11	27	75	29	81
C. OTHER								
D. TOTAL	42	117	4	11	46	128	60	168

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					12	33	16	44
2. BUILDING SPACE								
3. OTHER MAINTENANCE					2	5	3	8
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	1	2	1	2	4	11	5	14
4B. ADMIN AND OTHER PROFESSIONAL	2	5	3	8	8	22	11	30
4C. OTHER	4	11	5	14	6	16	10	28
4 TOTAL SALARIES AND WAGES	7	19	9	25	18	50	26	72
5. OFF-CAMPUS COMPUTING SERVICE								
6. OTHER DIRECT COSTS					3	8	5	14
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					7	19	10	28
TOTAL					42	117	60	168

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	4	11					4	11
1965-66	1	2	1	2			2	5
1966-67	1	2					1	2
1967-68	5	14					5	14
1968-69								

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 2 TYPE 5 LEVEL 3
SAMPLE SIZE 5 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.			53	63	53	63	25	30
2.OTHER							5	6
TOTAL FED GOVT			53	63	53	63	30	36
B.INSTITUTION	139	166	54	64	193	231	235	282
C. OTHER							40	48
D. TOTAL	139	166	107	128	246	295	305	366

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					30	36	101	121
2. BUILDING SPACE					3	3	4	4
3. OTHER MAINTENANCE					4	4	7	8
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	3	3	6	7	15	18	33	39
4B. ADMIN AND OTHER PROFESSIONAL	4	4	6	7	34	40	59	70
4C. OTHER	5	6	16	19	15	18	35	42
4 TOTAL SALARIES AND WAGES	12	14	28	33	64	76	127	152
5. OFF-CAMPUS COMPUTING SERVICE					11	13	9	10
6. OTHER DIRECT COSTS					7	8	13	15
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					20	24	43	51
TOTAL					139	166	304	364

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	106	127			1	1	107	128
1965-66	3	3			1	1	4	4
1966-67					1	1	1	1
1967-68	5	6			3	3	8	9
1968-69					1	1	1	1

CTL 2 TYPE 5 LEVEL 4
SAMPLE SIZE 7 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	233	299			233	299	1140	1465
2.OTHER	370	475			370	475	335	430
TOTAL FED GOVT	603	775			603	775	1475	1896
B.INSTITUTION	1451	1865	118	151	1569	2017	3090	3972
C. OTHER	65	83	25	32	90	115	170	218
D. TOTAL	2119	2724	143	183	2262	2908	4735	6087

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					759	975	1272	1635
2. BUILDING SPACE					26	33	83	106
3. OTHER MAINTENANCE					28	35	43	55
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	31	39	49	62	224	287	463	595
4B. ADMIN AND OTHER PROFESSIONAL	21	26	28	35	317	407	464	596
4C. OTHER	59	75	86	110	196	251	314	403
4 TOTAL SALARIES AND WAGES	111	142	163	209	737	947	1241	1595
5. OFF-CAMPUS COMPUTING SERVICE					30	38	34	43
6. OTHER DIRECT COSTS					213	273	411	528
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					326	419	568	730
TOTAL					2119	2724	3652	4695

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65	79	101			9	11	88	113
1965-66	536	689	3	3	38	48	577	741
1966-67	555	713	165	212	49	62	769	988
1967-68	175	224	205	263	57	73	437	561
1968-69	215	276	710	912	158	203	1083	1392

CTL 2 TYPE 7 LEVEL 2
SAMPLE SIZE 14 POP. SIZE 53
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.								
2.OTHER								
TOTAL FED GOVT								
B.INSTITUTION	39	147	10	37	49	185	163	617
C. OTHER								
D. TOTAL	39	147	10	37	49	185	163	617

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					13	49	15	56
2. BUILDING SPACE					3	11	4	15
3. OTHER MAINTENANCE							3	11
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.			2	7	6	22	12	45
4B. ADMIN AND OTHER PROFESSIONAL	1	3	1	3	4	15	6	22
4C. OTHER	2	7	3	11	8	30	11	41
4 TOTAL SALARIES AND WAGES	3	11	6	22	18	68	29	109
5. OFF-CAMPUS COMPUTING SERVICE								
6. OTHER DIRECT COSTS					3	11	6	22
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					2	7	2	7
TOTAL					39	147	59	223

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65			10	37			10	37
1965-66	4	15	3	11	3	11	10	37
1966-67					1	3	1	3
1967-68					1	3	1	3
1968-69	100	378			4	15	104	393

CTL 2 TYPE 7 LEVEL 3
SAMPLE SIZE 11 POP. SIZE 13
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.								
2.OTHER								
TOTAL FED GOVT								
B.INSTITUTION	109	128			109	128	364	430
C. OTHER							50	59
D. TOTAL	109	128			109	128	414	489

ITEM III CURRENT EXPENDITURES BY COST ITEM					REPORTING PERIOD		1968-69 PROJECTED	
COST ITEM								
1. EQUIPMENT RENTALS					22	25	96	113
2. BUILDING SPACE					4	4	109	128
3. OTHER MAINTENANCE					2	2	7	8
4. SALARIES AND WAGES	NUMBER		1968-69 PROJ.					
4A. SYSTEMS AND UTILITY PROG.	5	5	9	10	20	23	48	56
4B. ADMIN AND OTHER PROFESSIONAL	5	5	7	8	33	38	55	64
4C. OTHER	1	1	7	8	4	4	38	44
4 TOTAL SALARIES AND WAGES	11	12	23	27	57	67	141	166
5. OFF-CAMPUS COMPUTING SERVICE					5	5	5	5
6. OTHER DIRECT COSTS					2	2	4	4
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					17	20	52	61
TOTAL					109	128	414	489

ITEM IV CAPITAL EXPENDITURES								
YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65								
1965-66					1	1	1	1
1966-67					1	1	1	1
1967-68								
1968-69								

CTL 2 TYPE 7 LEVEL 4
SAMPLE SIZE 9 POP. SIZE 11
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT		CAPITAL		TOTAL		PROJECTED 1968-69	
A. FED. GOVT								
1.PRIMARILY COMP. ACT.	71	86	61	74	132	161	362	442
2.OTHER	133	162	40	48	173	211	150	183
TOTAL FED GOVT	204	249	101	123	305	372	512	625
B.INSTITUTION	72	87	11	13	83	101	171	208
C. OTHER	23	28	7	8	30	36	55	67
D. TOTAL	299	365	119	145	418	510	738	901

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER		1968-69 PROJ.		REPORTING PERIOD		1968-69 PROJECTED	
1. EQUIPMENT RENTALS					83	101	159	194
2. BUILDING SPACE								
3. OTHER MAINTENANCE					2	2	5	6
4. SALARIES AND WAGES								
4A. SYSTEMS AND UTILITY PROG.	7	8	13	15	50	61	114	139
4B. ADMIN AND OTHER PROFESSIONAL	4	4	5	6	47	57	79	96
4C. OTHER	10	12	17	20	45	54	79	96
4 TOTAL SALARIES AND WAGES	21	25	35	42	142	173	272	332
5. OFF-CAMPUS COMPUTING SERVICE							4	4
6. OTHER DIRECT COSTS					23	28	42	51
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN					46	56	106	129
TOTAL					296	361	588	718

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.		BUILDINGS		FURNITURE ETC.		TOTAL	
1964-65			40	48	7	8	47	57
1965-66	72	87			2	2	74	90
1966-67	110	134			6	7	116	141
1967-68	125	152			8	9	133	162
1968-69	150	183			10	12	160	195

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE X LEVEL 1
SAMPLE SIZE 082 POP. SIZE 0428
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	478	746	1225	1599
2.OTHER				253
TOTAL FED GOVT	478	746	1225	1852
B.INSTITUTION	2941	1835	4776	10669
C. OTHER	388	1126	1515	1690
D. TOTAL	3810	3708	7518	14212

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			943	2559
2. BUILDING SPACE			71	671
3. OTHER MAINTENANCE			133	334
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	50	123	292	816
4B. ADMIN AND OTHER PROFESSIONAL	130	298	1149	2673
4C. OTHER	101	309	343	883
4 TOTAL SALARIES AND WAGES	283	731	1785	4374
5. OFF-CAMPUS COMPUTING SERVICE				25
6. OTHER DIRECT COSTS			260	606
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			613	1422
TOTAL			3810	9995

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	3259	235	264	3759
1965-66	1393	71	247	1843
1966-67	2209	156	197	2653
1967-68	1673	45	191	1909
1968-69	3876	316	366	4560

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE X LEVEL 2
SAMPLE SIZE 027 POP. SIZE 0092
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.		57	57	310
2.OTHER				
TOTAL FED GOVT		57	57	310
B.INSTITUTION	462	147	610	2345
C. OTHER	136	62	198	100
D. TOTAL	598	267	866	2755

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			244	974
2. BUILDING SPACE				5
3. OTHER MAINTENANCE			1	20
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	8	23	60	150
4B. ADMIN AND OTHER PROFESSIONAL	15	35	96	269
4C. OTHER	22	48	76	195
4 TOTAL SALARIES AND WAGES	46	106	232	616
5. OFF-CAMPUS COMPUTING SERVICE			4	8
6. OTHER DIRECT COSTS			16	45
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			99	308
TOTAL			598	1980

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	240		27	267
1965-66	340		46	386
1966-67	124	126	35	286
1967-68	340		42	382
1968-69	720		55	775

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE X LEVEL 3
SAMPLE SIZE 062 POP. SIZE 0188
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	216	94	311	1702
2.OTHER	50		50	489
TOTAL FED GOVT	266	94	361	2193
B.INSTITUTION	4479	365	4844	17337
C. OTHER	252	37	289	955
D. TOTAL	4998	497	5498	20489

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			1923	6870
2. BUILDING SPACE			21	1179
3. OTHER MAINTENANCE			85	150
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	39	205	300	1581
4B. ADMIN AND OTHER PROFESSIONAL	72	159	651	1582
4C. OTHER	167	412	617	1691
4 TOTAL SALARIES AND WAGES	281	780	1572	4857
5. OFF-CAMPUS COMPUTING SERVICE			5	5
6. OTHER DIRECT COSTS			213	562
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			708	2259
TOTAL			4436	15901

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	446	541	74	1062
1965-66	356	26	83	467
1966-67	585	1290	243	2122
1967-68	675	173	165	1016
1968-69	2939	1407	250	4599

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE X LEVEL 4
SAMPLE SIZE 123 POP. SIZE 0132
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	5027	3243	8270	29664
2.OTHER	6668	2129	8798	19302
TOTAL FED GOVT	11696	5373	17069	48967
B.INSTITUTION	18280	5474	23755	66788
C. OTHER	3199	899	4098	11088
D. TOTAL	33177	11746	44923	126844

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			11077	40592
2. BUILDING SPACE			469	1453
3. OTHER MAINTENANCE			1133	1899
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	650	1506	4558	12529
4B. ADMIN AND OTHER PROFESSIONAL	411	818	4092	9790
4C. OTHER	1141	2055	4820	9659
4 TOTAL SALARIES AND WAGES	2203	4380	13471	31979
5. OFF-CAMPUS COMPUTING SERVICE			257	234
6. OTHER DIRECT COSTS			3014	6960
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			3760	10288
TOTAL			33184	93409

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	8521	1506	432	10461
1965-66	8332	5523	410	14266
1966-67	13495	7752	768	22016
1967-68	11708	20366	1525	33599
1968-69	20410	10979	2191	33580

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 2 TYPE X LEVEL 2
SAMPLE SIZE 115 POP. SIZE 0702
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.		275	275	1066
2.OTHER	59		59	86
TOTAL FED GOVT	59	275	335	1152
B.INSTITUTION	1321	1572	2894	3457
C. OTHER	6	376	382	627
D. TOTAL	1386	2224	3611	5237

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			351	959
2. BUILDING SPACE			73	15
3. OTHER MAINTENANCE			55	119
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	14	46	158	316
4B. ADMIN AND OTHER PROFESSIONAL	26	61	200	503
4C. OTHER	74	175	246	508
4 TOTAL SALARIES AND WAGES	117	285	607	1328
5. OFF-CAMPUS COMPUTING SERVICE				25
6. OTHER DIRECT COSTS			150	249
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			145	423
TOTAL			1386	3125

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	1747	300	156	2224
1965-66	17	25	17	60
1966-67	284		90	375
1967-68	1619	250	84	1954
1968-69	2071		40	2111

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 2 TYPE X LEVEL 3
SAMPLE SIZE 096 POP. SIZE 0278
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	141	188	329	1619
2.OTHER	72		72	497
TOTAL FED GOVT	213	188	401	2116
B.INSTITUTION	2007	267	2275	12994
C. OTHER	407	475	882	2554
D. TOTAL	2628	931	3561	17665

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			1271	3563
2. BUILDING SPACE			26	164
3. OTHER MAINTENANCE			39	104
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	54	153	274	1238
4B. ADMIN AND OTHER PROFESSIONAL	55	143	408	1351
4C. OTHER	115	234	395	924
4 TOTAL SALARIES AND WAGES	227	533	1080	3517
5. OFF-CAMPUS COMPUTING SERVICE			55	112
6. OTHER DIRECT COSTS			180	558
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			477	1578
TOTAL			3137	9606

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	340	64	62	486
1965-66	399	100	49	539
1966-67	1652	155	103	1910
1967-68	929	308	100	1338
1968-69	5403	2094	219	7808

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 2 TYPE X LEVEL 4
SAMPLE SIZE 104 POP. SIZE 0137
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	11393	2782	14176	26642
2.OTHER	8603	939	9544	25610
TOTAL FED GOVT	19999	3723	23722	52255
B.INSTITUTION	9249	2259	11512	28389
C. OTHER	2634	3001	5636	8121
D. TOTAL	31885	8986	40873	88769

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			11555	33042
2. BUILDING SPACE			945	1600
3. OTHER MAINTENANCE			1003	1894
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	520	1027	4019	9220
4B. ADMIN AND OTHER PROFESSIONAL	370	648	3642	7181
4C. OTHER	800	1237	3466	6336
4 TOTAL SALARIES AND WAGES	1695	2916	11132	22740
5. OFF-CAMPUS COMPUTING SERVICE			304	326
6. OTHER DIRECT COSTS			3152	5457
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			3803	7565
TOTAL			31905	72635

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	4231	1641	337	6212
1965-66	6541	2493	452	9510
1966-67	9350	5442	696	15491
1967-68	4235	5461	523	10224
1968-69	8387	6810	836	16036

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL X TYPE X LEVEL 1
SAMPLE SIZE 245 POP. SIZE 0825
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	478	746	1225	1609
2.OTHER				253
TOTAL FED GOVT	478	746	1225	1862
B.INSTITUTION	2941	1835	4776	10715
C. OTHER	388	1149	1538	1690
D. TOTAL	3810	3731	7541	14268

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			943	2559
2. BUILDING SPACE			71	671
3. OTHER MAINTENANCE			133	334
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	50	123	292	839
4B. ADMIN AND OTHER PROFESSIONAL	130	298	1149	2673
4C. OTHER	101	309	343	888
4 TOTAL SALARIES AND WAGES	283	731	1785	4403
5. OFF-CAMPUS COMPUTING SERVICE				51
6. OTHER DIRECT COSTS			260	606
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			613	1423
TOTAL			3810	10051

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	3282	235	264	3782
1965-66	1454	71	248	1776
1966-67	2310	156	197	2664
1967-68	1673	45	191	1909
1968-69	3876	316	366	4560

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL X TYPE X LEVEL 2
SAMPLE SIZE 142 POP. SIZE 0794
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.		332	332	1376
2.OTHER	59		59	86
TOTAL FED GOVT	59	332	392	1462
B.INSTITUTION	1783	1719	3504	5802
C. OTHER	142	438	580	727
D. TOTAL	1984	2491	4477	7992

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			595	1933
2. BUILDING SPACE			73	20
3. OTHER MAINTENANCE			56	139
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	22	69	218	466
4B. ADMIN AND OTHER PROFESSIONAL	41	96	296	772
4C. OTHER	96	223	322	703
4 TOTAL SALARIES AND WAGES	163	391	839	1944
5. OFF-CAMPUS COMPUTING SERVICE			4	33
6. OTHER DIRECT COSTS			166	294
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			244	731
TOTAL			1984	5105

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	2007	300	183	2491
1965-66	357	25	63	446
1966-67	408	126	125	661
1967-68	1959	250	126	2336
1968-69	2791		95	2886

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL 3
SAMPLE SIZE 158 POP. SIZE 0466
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	357	282	640	3321
2.OTHER	122		122	986
TOTAL FED GOVT	479	282	762	4309
B.INSTITUTION	6486	632	7119	30331
C. OTHER	659	512	1171	3509
D. TOTAL	7626	1428	9059	38154

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			3094	10433
2. BUILDING SPACE			47	1343
3. OTHER MAINTENANCE			124	254
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	93	358	574	2819
4B. ADMIN AND OTHER PROFESSIONAL	127	302	1059	2933
4C. OTHER	282	646	1012	2615
4 TOTAL SALARIES AND WAGES	508	1313	2652	8374
5. OFF-CAMPUS COMPUTING SERVICE			60	117
6. OTHER DIRECT COSTS			393	1120
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			1185	3847
TOTAL			7573	25507

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	806	605	136	1548
1965-66	745	126	132	1006
1966-67	2237	1445	346	4032
1967-68	1604	481	265	2354
1968-69	8432	3501	469	12407

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL X TYPE X LEVEL 4
SAMPLE SIZE 227 POP. SIZE 0269
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	16420	6025	22446	56306
2.OTHER	15271	3068	18342	44912
TOTAL FED GOVT	31695	9096	40791	101222
B.INSTITUTION	27529	7733	35267	95177
C. OTHER	5833	3900	9734	19209
D. TOTAL	65062	20732	85796	215613

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			22632	73634
2. BUILDING SPACE			1414	3053
3. OTHER MAINTENANCE			2136	3793
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	1170	2533	8577	21749
4B. ADMIN AND OTHER PROFESSIONAL	781	1466	7734	16971
4C. OTHER	1941	3292	8286	15995
4 TOTAL SALARIES AND WAGES	3898	7296	24603	54719
5. OFF-CAMPUS COMPUTING SERVICE			561	560
6. OTHER DIRECT COSTS			6166	12417
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			7563	17853
TOTAL			65089	166044

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	12752	3147	769	16673
1965-66	14893	8016	862	23776
1966-67	22845	13194	1464	37507
1967-68	15943	25827	2048	43823
1968-69	28797	17789	3027	49616

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL X TYPE X LEVEL X
SAMPLE SIZE 669 POP. SIZE 2219
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

ITEM II BY SOURCE	CURRENT	CAPITAL	TOTAL	PROJECTED 1968-69
A. FED. GOVT				
1.PRIMARILY COMP. ACT.	17263	7385	24651	62624
2.OTHER	15452	3068	18523	46237
TOTAL FED GOVT	32719	10456	43178	108867
B.INSTITUTION	38793	11919	50720	142105
C. OTHER	7022	5999	13023	25135
D. TOTAL	78544	28382	106935	276119

ITEM III CURRENT EXPENDITURES BY COST ITEM

COST ITEM	NUMBER	1968-69 PROJ.	REPORTING PERIOD	1968-69 PROJECTED
1. EQUIPMENT RENTALS			27296	88607
2. BUILDING SPACE			1605	5087
3. OTHER MAINTENANCE			2451	4524
4. SALARIES AND WAGES				
4A. SYSTEMS AND UTILITY PROG.	1335	3083	9661	25873
4B. ADMIN AND OTHER PROFESSIONAL	1081	2164	10248	23363
4C. OTHER	2428	4478	9971	20211
4 TOTAL SALARIES AND WAGES	4862	9741	29897	69464
5. OFF-CAMPUS COMPUTING SERVICE			625	761
6. OTHER DIRECT COSTS			6985	14437
7. INDIRECT COSTS GEN ADMIN AND GEN EXPEN			9615	23870
TOTAL			78518	206799

ITEM IV CAPITAL EXPENDITURES

YEAR	COMPUTERS AND PERIPH.	BUILDINGS	FURNITURE ETC.	TOTAL
1964-65	18847	4287	1352	24494
1965-66	17469	8238	1305	27004
1966-67	27800	14921	2132	44864
1967-68	21179	26603	2630	50422
1968-69	43806	21606	3957	69469

VI-B. Estimates by Stratum and Groups of Strata for Federal and Non-Federal Funds Provided Primarily for Support of Computer Equipment, Buildings, and Activities; Institutional Contributions to Sponsored R & D; and Manufacturers' Contributions. (Items V-VI of Questionnaire.)

For each stratum, each grouping of strata by Type of Control and Highest Level of Offering, and all institutions (Group XXX), the entries of Items V-VI of the questionnaire are summarized and the corresponding population estimates given. Sample values are also presented in stratum summaries. For stratum estimates the sample values are presented first and the corresponding population estimates follow to their right on the same line. All dollar amounts are in thousands and the number of institutions under "Funds not Adequate" are complete as presented.

e.g. For FY65 the 106 public universities offering the doctorate (stratum 1 1 4, Page VI-B-3) received an estimated $5,802,000 from all sources for the rental or purchase of digital computer equipment and its buildings. For FY69 the institutions are expecting an estimated $20,889,000 for this same purpose. During FY65 the manufacturers contributed $17,606,000 to these institutions in the form of educational discounts on purchase and rentals and other services related to the maintenance and operation of the computer for research and instruction. At approximately 56 of the institutions funds to pay for computer services to Federal Sponsored R & D were short by an estimated $3,884,000 and at about 38 institutions the shortage for non-federal sponsored R & D totaled approximately $1,360,000.

Strata Identification:

CTL = Type of Control

1 = Public
2 = Private

TYPE = Type of Institution

0 = Semiprofessional School
1 = University
2 = Liberal Arts College
4 = Teachers College
5 = Independent Technological School
6 = Theological or Religious School
7 = Other Independent Professional School
8 = Junior College
9 = Technical Institution

LEVEL = Highest Level of Offering

1 = Two to Four Years Beyond 12th Grade
2 = Bachelor's and/or First Professional Degree
3 = Master's and/or Second Professional Degree
4 = Doctor of Philosophy or Equivalent Degree
5 = Other

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE 1 LEVEL 3
SAMPLE SIZE 4 POP. SIZE 4
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL					
B.NON-FEDERAL					
			3	3	
TOTAL			3	3	
TOTAL PROJECTED 1968-69			70	70	

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	3	3	4	4	CURRENT	45	45
NON-FED SPONSORED R-D	1	1			CAPITAL	13	13
TOTAL	4	4	4	4	TOTAL	58	58

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
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CTL 1 TYPE 1 LEVEL 4
SAMPLE SIZE 97 POP. SIZE 106
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	4252	4646	1659	1812	1493 1631	12	13	663	724
B.NON-FEDERAL	1058	1156	366	399	397 433	202	220	96	104
TOTAL	5310	5802	2025	2212	1890 2065	214	233	759	829
TOTAL PROJECTED 1968-69	19116	20889	5614	6134	4623 5051	1437	1570	2949	3222

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	52	56	3555	3884	CURRENT	10446	11415
NON-FED SPONSORED R-D	35	38	1245	1360	CAPITAL	5666	6191
TOTAL	87	95	4800	5245	TOTAL	16112	17606.

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSE C465

CTL 1 TYPE 2 LEVEL 2
SAMPLE SIZE 12 POP. SIZE 48
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL					
B.NON-FEDERAL					
TOTAL					
TOTAL PROJECTED 1968-69					

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D				
NON-FED SPONSORED R-D		CURRENT	10	40
TOTAL		CAPITAL		
		TOTAL	10	40

CTL 1 TYPE 2 LEVEL 3
SAMPLE SIZE 18 POP. SIZE 60
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		COMPUTER TIME FOR R+D+GRAD.INSTR. OPR. COST		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	12	39	30	99				
B.NON-FEDERAL							1	3
TOTAL	12	39	30	99			1	3
TOTAL PROJECTED 1968-69	220	733	80	266	5	16	10	33

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS		
FED. SPONSORED R+D	2	6	5	16	CURRENT	279	929
NON-FED SPONSORED R-D	2	6	1	3	CAPITAL	10	33
TOTAL	4	13	6	19	TOTAL	289	963

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 2 LEVEL 4
SAMPLE SIZE 7 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL			10	10						
B.NON-FEDERAL										
TOTAL			10	10						
TOTAL PROJECTED 1968-69	60	60	200	200	550	550	20	20	20	20

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	2	2	21	21	CURRENT	184	184
NON-FED SPONSORED R-D	2	2	2	2	CAPITAL		
TOTAL	4	4	23	23	TOTAL	184	184

CTL 1 TYPE 4 LEVEL 3
SAMPLE SIZE 33 POP. SIZE 116
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	38	133	1	3	2	7	3	10	5	17
B.NON-FEDERAL										
TOTAL	38	133	1	3	2	7	3	10	5	17
TOTAL PROJECTED 1968-69	114	400	1	3	5	17	3	10	25	87

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS		
FED. SPONSORED R+D					CURRENT	73	256
NON-FED SPONSORED R-D	2	7	5	17	CAPITAL	61	214
TOTAL	2	7	5	17	TOTAL	134	471

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 4 LEVEL 4
SAMPLE SIZE 5 POP. SIZE 5
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE
A.FEDERAL							
B.NON-FEDERAL							
TOTAL							
TOTAL PROJECTED 1968-69			10	10	5	5	

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	70	70
NON-FED SPONSORED R-D		CAPITAL		
TOTAL		TOTAL	70	70

GTL 1 TYPE 5 LEVEL 2
SAMPLE SIZE 5 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR. UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	48 57		
B.NON-FEDERAL	52 62		
TOTAL	100 120		

TOTAL PROJECTED 1968-69

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	27	32
NON-FED SPONSORED R-D		CAPITAL	25	30
TOTAL		TOTAL	52	62

CTL 1 TYPE 5 LEVEL 3
SAMPLE SIZE 6 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL					
B.NON-FEDERAL		1	1		
TOTAL		1	1		
TOTAL PROJECTED 1968-69	103	120	4	4	

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	31	36
NON-FED SPONSORED R-D		CAPITAL	54	63
TOTAL		TOTAL	85	99

GTL 1 TYPE 5 LEVEL 4
SAMPLE SIZE 6 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR RENT.OR PURCH		BLDGS OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	15	15	20	20	25	25			3	3
B.NON-FEDERAL					117	117				
TOTAL	15	15	20	20	142	142			3	3
TOTAL PROJECTED 1968-69	580	580			250	250	50	50	80	80

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	2	2	50	50	CURRENT	253	253
NON-FED. SPONSORED R-D	2	2	10	10	CAPITAL		
TOTAL	4	4	60	60	TOTAL	253	253

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 7 LEVEL 4
SAMPLE SIZE 8 POP. SIZE 8
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	72	72	7	7	22	22			102	102
B.NON-FEDERAL										
TOTAL	72	72	7	7	22	22			102	102
TOTAL PROJECTED 1968-69	330	330	85	85	85	85			115	115

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	3	3	23	23	CURRENT	167	167
NON-FED SPONSORED R-D	3	3	13	13	CAPITAL	54	54
TOTAL	6	6	36	36	TOTAL	221	221

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 8 LEVEL 1
SAMPLE SIZE 71 POP. SIZE 400
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR RENT.OR PURCH		BLDGS OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	68	383	28	157			21	118		
B.NON-FEDERAL	139	783	33	185			50	281	5	28
TOTAL	207	1166	61	343			71	400	5	28
TOTAL PROJECTED 1968-69	261	1470	57	321			71	400	5	28

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	5	28	28	157	CURRENT	108	608
NON-FED SPONSORED R-D	3	16			CAPITAL	305	1718
TOTAL	8	45	28	157	TOTAL	413	2326

CTL 1 TYPE 9 LEVEL 1
SAMPLE SIZE 8 POP. SIZE 20
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR RENT.OR PURCH	BLDGS OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	155 387	2	5		
B.NON-FEDERAL					
TOTAL	155 387	2	5		

TOTAL PROJECTED 1968-69

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	1	2
NON-FED SPONSORED R-D		CAPITAL		
TOTAL		TOTAL	1	2

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF'C465

CTL 2 TYPE 1 LEVEL 3
SAMPLE SIZE 9 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR RENT.OR PURCH		BLDGS OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE
A.FEDERAL	14	14	25	25	46	46			
B.NON-FEDERAL	35	35							
TOTAL	49	49	25	25	46	46			
TOTAL PROJECTED 1968-69	120	120	50	50	65	65			

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	1	1	9	9	CURRENT	90	90
NON-FED SPONSORED R-D					CAPITAL	20	20
TOTAL	1	1	9	9	TOTAL	110	110

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 1 LEVEL 4
SAMPLE SIZE 61 POP. SIZE 65
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	6128	6529	4451	4742	1203	1281	174	185	424	451
B.NON-FEDERAL	1162	1238	459	489	462	492	3	3	493	525
TOTAL	7290	7768	4910	5231	1665	1774	177	188	917	977
TOTAL PROJECTED 1968-69	10854	11565	11947	12730	6532	6960	1294	1378	2388	2544

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	26	27	1156	1231	CURRENT	8410	8961
NON-FED . SPONSORED R-D	19	20	612	652	CAPITAL	2590	2759
TOTAL	45	47	1768	1883	TOTAL	11000	11721

STL 2 TYPE 2 LEVEL 2
SAMPLE SIZE 81 POP. SIZE 508
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	24	150			
B.NON-FEDERAL					
TOTAL	24	150			
TOTAL PROJECTED 1968-69	257	1611			

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D			CURRENT	
NON-FED SPONSORED R-D			CAPITAL	492 3085
TOTAL			TOTAL	492 3085

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 2 LEVEL 3
SAMPLE SIZE 55 POP. SIZE 172
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	28	87	9	28	2	6	11	34	8	25
B.NON-FEDERAL	16	50	12	37						
TOTAL	44	137	21	65	2	6	11	34	8	25
TOTAL PROJECTED 1968-69	443	1385	51	159	30	93	44	137	340	1063

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	3	9	25	78	CURRENT	143	447
NON-FED SPONSORED R-D	1	3	2	6	CAPITAL	341	1066
TOTAL	4	12	27	84	TOTAL	484	1513

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 2 LEVEL 4
SAMPLE SIZE 20 POP. SIZE 22
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR RENT.OR PURCH		BLDGS OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE	
A.FEDERAL	463	509	21	23	8	8	49	53	25	27
B.NON-FEDERAL	20	22			15	16			1	1
TOTAL	483	531	21	23	23	25	49	53	26	28
TOTAL PROJECTED 1968-69	317	348	38	41	163	179	56	61	61	67

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	5	5	62	68	CURRENT	60	66
NON-FED SPONSORED R-D	3	3	21	23	CAPITAL	682	750
TOTAL	8	8	83	91	TOTAL	742	816

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 4 LEVEL 3
SAMPLE SIZE 8 POP. SIZE 8
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL					
B.NON-FEDERAL					
TOTAL					
TOTAL PROJECTED 1968-69					

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D				
NON-FED SPONSORED R-D				
TOTAL				
		CURRENT	35	35
		CAPITAL		
		TOTAL	35	35

CTL 2 TYPE 5 LEVEL 2
SAMPLE SIZE 5 POP. SIZE 14
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL					
B.NON-FEDERAL					
TOTAL					
TOTAL PROJECTED 1968-69					

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	15	42
NON-FED SPONSORED R-D		CAPITAL	1	2
TOTAL		TOTAL	16	44

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 5 LEVEL 3
SAMPLE SIZE 5 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE
A.FEDERAL	53	63							
B.NON-FEDERAL									
TOTAL	53	63							
TOTAL PROJECTED 1968-69	25	30	5	6					

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	7	8
NON-FED SPONSORED R-D		CAPITAL	150	180
TOTAL		TOTAL	157	188

CTL 2 TYPE 5 LEVEL 4
SAMPLE SIZE 7 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.	COMPUTER SCIENCE	
A.FEDERAL	156	200	10	12	30	38	77	98
B.NON-FEDERAL	25	32					50	64
TOTAL	181	232	10	12	30	38	127	163
TOTAL PROJECTED 1968-69	450	578	150	192	420	539	205	263

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	4	5	588	755	CURRENT	839	1078
NON-FED SPONSORED R-D	2	2	33	42	CAPITAL		
TOTAL	6	7	621	798	TOTAL	839	1078

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 7 LEVEL 2
SAMPLE SIZE 14 POP. SIZE 53
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL					
B.NON-FEDERAL					
TOTAL					
TOTAL PROJECTED 1968-69					

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	15	56
NON-FED SPONSORED R-D		CAPITAL	4	15
TOTAL		TOTAL	19	71

CTL 2 TYPE 7 LEVEL 3
SAMPLE SIZE 11 POP. SIZE 13
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE	
A.FEDERAL						
B.NON-FEDERAL						
TOTAL						
TOTAL PROJECTED 1968-69	30	35			20	23

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D		CURRENT	36	42
NON-FED SPONSORED R-D		CAPITAL		
TOTAL		TOTAL	36	42

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 7 LEVEL 4
SAMPLE SIZE 9 POP. SIZE 11
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH		OPR. COST		COMPUTER TIME FOR R+D+GRAD.INSTR.		UNDERGRAD.INSTR.		COMPUTER SCIENCE
A.FEDERAL	70	85	56	68	6	7			
B.NON-FEDERAL	8	9	7	8	10	12			
TOTAL	78	95	63	76	16	19			
TOTAL PROJECTED 1968-69	187	228	126	153	110	134			

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE		AMOUNT OF DEFICIENCY			MANUFACTURERS CONTRIBUTIONS	
FED. SPONSORED R+D	2	2	15	18	CURRENT	98	119
NON-FED SPONSORED R-D	1	1	6	7	CAPITAL	119	145
TOTAL	3	3	21	25	TOTAL	217	265

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE X LEVEL 1
SAMPLE SIZE 082 POP. SIZE 0428
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	770	162		118	
B.NON-FEDERAL	783	185		281	28
TOTAL	1553	348		400	28
TOTAL PROJECTED 1968-69	1470	321		400	28

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	28	157	CURRENT	610
NON-FED SPONSORED R-D	16		CAPITAL	1718
TOTAL	45	157	TOTAL	2328

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE X LEVEL 2
SAMPLE SIZE 027 POP. SIZE 0092
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	57				
B.NON-FEDERAL	62				
TOTAL	120				
TOTAL PROJECTED 1968-69	100		10		

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D		CURRENT	72
NON-FED SPONSORED R-D		CAPITAL	30
TOTAL		TOTAL	102

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE X LEVEL 3
SAMPLE SIZE 062 POP. SIZE 0188
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	172	3	106	10	17
B.NON-FEDERAL		1	3		3
TOTAL	172	4	109	10	20
TOTAL PROJECTED 1968-69	1253	3	357	26	130

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	9	20	CURRENT	1266
NON-FED SPONSORED R-D	14	20	CAPITAL	371
TOTAL	24	40	TOTAL	1639

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE X LEVEL 4
SAMPLE SIZE 123 POP. SIZE 0132
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	4733	1849	1678	13	829
B.NON-FEDERAL	1156	399	550	220	104
TOTAL	5889	2249	2229	233	934
TOTAL PROJECTED 1968-69	21859	6419	5946	1645	3437

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	63	3978	CURRENT	12089
NON-FED SPONSORED R-D	45	1385	CAPITAL	6245
TOTAL	109	5364	TOTAL	18334

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE X LEVEL 2
SAMPLE SIZE 115 POP. SIZE 0702
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	150			
B.NON-FEDERAL				
TOTAL	150			
TOTAL PROJECTED 1968-69	1611			

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D		CURRENT	98
NON-FED SPONSORED R-D		CAPITAL	3102
TOTAL		TOTAL	3200

CTL 2 TYPE X LEVEL 3
SAMPLE SIZE 096 POP. SIZE 0278
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	164	53	52	34	25
B.NON-FEDERAL	85	37			
TOTAL	249	90	52	34	25
TOTAL PROJECTED 1968-69	1570	215	158	137	1086

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	10	87	CURRENT	622
NON-FED SPONSORED R-D	3	6	CAPITAL	1266
TOTAL	13	93	TOTAL	1888

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE X LEVEL 4
SAMPLE SIZE 104 POP. SIZE 0137
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	7323	4845	1334	238	576
B.NON-FEDERAL	1301	497	520	3	590
TOTAL	8626	5342	1856	241	1168
TOTAL PROJECTED 1968-69	12719	13116	7812	1439	2874

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	39	2072	CURRENT	10224
NON-FED SPONSORED R-D	26	724	CAPITAL	3654
TOTAL	65	2797	TOTAL	13880

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL 1
SAMPLE SIZE 245 POP. SIZE 0825
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	770	162		118	
B.NON-FEDERAL	783	185		281	28
TOTAL	1553	348		400	28
TOTAL PROJECTED 1968-69	1470	321		410	28

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	28	157	CURRENT	610
NON-FED SPONSORED R-D	16		CAPITAL	1718
TOTAL	45	157	TOTAL	2328

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL 2
SAMPLE SIZE 142 POP. SIZE 0794
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	207			
B.NON-FEDERAL	62			
TOTAL	270			
TOTAL PROJECTED 1968-69	1711	10		

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE AMOUNT OF DEFICIENCY	MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	CURRENT	170
NON-FED SPONSORED R-D	CAPITAL	3132
TOTAL	TOTAL	3302

CTL X TYPE X LEVEL 3
SAMPLE SIZE 158 POP. SIZE 0466
SAMPLE(LEFT COLUMN) PUPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	336	56	158	44	42
B.NON-FEDERAL	85	38	3		3
TOTAL	421	94	161	44	45
TOTAL PROJECTED 1968-69	2823	218	515	163	1216

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	19	107	CURRENT	1888
NON-FED SPONSORED R-D	17	26	CAPITAL	1637
TOTAL	37	133	TOTAL	3527

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL 4
SAMPLE SIZE 227 POP. SIZE 0269
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	12056	6694	3012	251	1405
B.NON-FEDERAL	2457	896	1070	223	694
TOTAL	14515	7591	4085	474	2102
TOTAL PROJECTED 1968-69	34578	19535	13758	3084	6311

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	102	6050	CURRENT	22313
NON-FED SPONSORED R-D	71	2109	CAPITAL	9899
TOTAL	174	8161	TOTAL	32214

1964-65 COMPUTER SURVEY--SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL X
SAMPLE SIZE 669 POP. SIZE 2219
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)
(THOUSANDS OF DOLLARS)

SOURCE	DIG.COMP.EQUIP.OR BLDGS RENT.OR PURCH	OPR. COST	COMPUTER TIME FOR R+D+GRAD.INSTR.	UNDERGRAD.INSTR.	COMPUTER SCIENCE
A.FEDERAL	13369	6912	3178	413	1447
B.NON-FEDERAL	3387	1119	1073	504	725
TOTAL	16759	8033	4254	918	2175
TOTAL PROJECTED 1968-69	40582	20084	14285	3657	7555

ITEM VI. ADDITIONAL INSTITUTIONAL AND MANUFACTURERS CONTRIBUTIONS

	FUNDS NOT ADEQUATE	AMOUNT OF DEFICIENCY		MANUFACTURERS CONTRIBUTIONS
FED. SPONSORED R+D	149	6314	CURRENT	25021
NON-FED SPONSORED R-D	104	2135	CAPITAL	16386
TOTAL	256	8451	TOTAL	41411

VII. Distributions of Percentage of Use for Research and Instruction by Level and Academic Area. (Item VII of Questionnaire.)

Estimated theoretical frequencies (F) and relative frequencies (RF) are given for each cell of the questionnaire. Except for the right column of the questionnaire these estimates are presented in the same order as the cells appeared on the questionnaire. Since the respondents were not clearly instructed to distinguish between a not applicable, a zero, and a no-response the relative frequencies (RF) are of little use. Therefore for interpretation the frequencies (F) for the four class intervals 01-25, 26-50, 51-75, and 76-100 should be used and with the understanding that the numbers are biased on the low side (i.e., the estimates are likely to be less than the true values.)

e.g. For the 106 public universities offering the doctorate (strata 1 1 4, Page VII-3) 76 are estimated to be using the computer for R & D and graduate instruction in Engineering. An estimated 55 of these institutions have usage from 1% to 25% of their total usage in this category while approximately 21 have usage from 25% to 50% for R & D and Graduate Instruction in Engineering. An estimated 47 of these institutions have usage by outside organizations (EXTRA-INST) somewhere in the range of 1% to 25% of their total usage.

Strata Identification:

CTL = Type of Control

1 = Public
2 = Private

TYPE = Type of Institution

0 = Semiprofessional School
1 = University
2 = Liberal Arts College
4 = Teachers College
5 = Independent Technological School
6 = Theological or Religious School
7 = Other Independent Professional School
8 = Junior College
9 = Technical Institution

LEVEL = Highest Level of Offering

1 = Two to Four Years beyond 12th Grade
2 = Bachelor's and/or First Professional Degree
3 = Master's and/or Second Professional Degree
4 = Doctor of Philosophy or Equivalent Degree
5 = Other

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 1 LEVEL 3

SAMPLE SIZE 4 POP. SIZE 4
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75			1	.25									1	.25
	26- 50														
	01- 25	1	.25	2	.50	2	.50	4	1.00	1	.25	1	.25	3	.75
	NO RESP-00	3	.75	1	.25	2	.50			3	.75	3	.75		
	TOTAL F	4		4		4		4		4		4		4	
UNDER-GRAD INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25	1	.25	2	.50	1	.25	2	.50	2	.50	1	.25	2	.50
	NO RESP- 00	3	.75	2	.50	3	.75	2	.50	2	.50	3	.75	2	.50
	TOTAL F	4		4		4		4		4		4		4	
TOTAL R&D AND INSTRUCTION 1964-65	76-100														
	51- 75			1	.25									4	1.00
	26- 50	1	.25			1	.25	1	.25			1	.25		
	01- 25			2	.50	1	.25	3	.75	2	.50				
	NO RESP- 00	3	.75	1	.25	2	.50			2	.50	3	.75		
	TOTAL F	4		4		4		4		4		4		4	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100														
	51- 75													4	1.00
	26- 50	1	.25			1	.25	1	.25	1	.25	1	.25		
	01- 25			3	.75	2	.50	3	.75	2	.50	2	.50		
	NO RESP- 00	3	.75	1	.25	1	.25			1	.25	1	.25		
	TOTAL F	4		4		4		4		4		4		4	

	COMP CTR F	COMP CTR RF
	1	.25
	3	.75
	4	

	LIBR.SCI. F	LIBR.SCI. RF
	4	1.00
	4	

	EXTRA-INST. F	EXTRA-INST. RF
	4	1.00
	4	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 1 LEVEL 4

SAMPLE SIZE 97 PUP. SIZE 106
SAMPLE(LEFT COLUMN) PUPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *
R&D AND	76-100			1		2	.01							32	.30*
GRADUATE	51- 75			8	.07									35	.33*
INSTRUCTION	26- 50	21	.19	16	.15	7	.06	2	.01			4	.03	24	.22*
	01- 25	55	.51	61	.57	72	.67	79	.74	37	.34	64	.60	4	.03*
	NO RESP-00	31	.28	20	.18	25	.23	25	.23	69	.65	37	.35	11	.10*
	TOTAL F	107		106		106		106		106		105		106	*

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *	COMP CTR F	COMP CTR RF
															*		
UNDER-GRAD	76-100	1								1				2	.01*		
INSTRUCTION	51- 75									1				5	.04*		
	26- 50	10	.09					1		1		1		28	.26*	8	.07
	01- 25	59	.55	59	.55	38	.35	40	.38	43	.40	36	.33	54	.51*	57	.53
	NO RESP- 00	36	.33	47	.44	68	.64	64	.60	60	.56	69	.65	16	.15*	42	.39
	TOTAL F	106		106		106		105		106		106		105	*	107	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	********** *	********** *	LIBR.SCI. F	LIBR.SCI. RF
														*	*		
TOTAL R&D.	76-100	2	.01	1		2	.01	1		1				* 96	.90*		
AND	51- 75	8	.07	9	.08	1				1				*	*		
INSTRUCTION	26- 50	30	.28	25	.23	7	.06	4	.03	3	.02	10	.09*		*		
1964-65	01- 25	37	.34	52	.49	71	.66	75	.71	45	.42	63	.59*		*	24	.22
	NO RESP- 00	30	.28	19	.17	25	.23	25	.23	56	.52	33	.31*	10	.09*	82	.77
	TOTAL F	107		106		106		105		106		106	*	106	*	106	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	********** *	********** *	EXTRA-INST. F	EXTRA-INST. RF
														*	*		
TOTAL R&D	76-100			1						1				83	.78*		
AND INSTR.	51- 75	4	.03	3	.02	3	.02							10	.09*		
PROJECTED	26- 50	28	.26	24	.22	5	.04	3	.02	8	.07	9	.08	1	*	2	.01
1968-69	01- 25	46	.43	61	.58	78	.73	83	.78	69	.65	62	.58		*	47	.44
	NO RESP- 00	27	.25	16	.15	20	.18	20	.18	28	.26	35	.33	12	.11*	57	.53
	TOTAL F	105		105		106		106		106		106		106	*	106	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 2 LEVEL 2

SAMPLE SIZE 12 POP. SIZE 48
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25														
	NO RESP-00	48	1.00	48	1.00	48	1.00	48	1.00	48	1.00	48	1.00	48	1.00
	TOTAL F	48		48		48		48		48		48		48	
UNDER-GRAD INSTRUCTION	76-100			4	.08										
	51- 75													12	.25
	26- 50									4	.08				
	01- 25	8	.16							4	.08	4	.08		
	NO RESP- 00	40	.83	44	.91	48	1.00	48	1.00	40	.83	4	.08		
	TOTAL F	48		48		48		48		48		40	.83	36	.75
												48		48	
TOTAL R&D AND INSTRUCTION 1964-65	76-100			4	.08										
	51- 75													12	.25
	26- 50									4	.08				
	01- 25	8	.16							4	.08	4	.08		
	NO RESP- 00	40	.83	44	.91	48	1.00	48	1.00	40	.83	4	.08		
	TOTAL F	48		48		48		48		48		40	.83	36	.75
												48		48	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100			4	.08										
	51- 75	4	.08											16	.33
	26- 50									8	.16	4	.08		
	01- 25	8	.16	8	.16	4	.08	4	.08	4	.08	4	.08		
	NO RESP- 00	36	.75	36	.75	44	.91	44	.91	36	.75	40	.83	32	.66
	TOTAL F	48		48		48		48		48		48		48	

	COMP CTR F	COMP CTR RF
	48	1.00

	LIBR.SCI. F	LIBR.SCI. RF
	48	1.00

	EXTRA-INST. F	EXTRA-INST. RF
	48	1.00

INFORMATIUN IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 2 LEVEL 3

SAMPLE SIZE 18 POP. SIZE 60
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *
R&D AND	76-100											3	.05	3	.05*
GRADUATE	51- 75			3	.05									7	.11*
INSTRUCTION	26- 50									3	.05			3	.05*
	01- 25	10	.16	20	.33	3	.05	7	.11	7	.11	7	.11	13	.22*
	NO RESP-00	50	.83	37	.61	57	.95	53	.88	50	.83	50	.83	33	.55*
	TOTAL F	60		60		60		60		60		60		59	*

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100									13	.21			13	.22*		
INSTRUCTION	51- 75													7	.11*		
	26- 50	7	.11							3	.05	3	.05	13	.22*		
	01- 25	7	.11	20	.33	10	.16	13	.21	7	.11	17	.28	3	.05*	17	.28
	NO RESP- 00	47	.77	40	.66	50	.83	47	.78	37	.61	40	.66	23	.38*	43	.71
	TOTAL F	61		60		60		60		60		60		59	*	60	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100									13	.21	3	.05*	40	.66*		
AND	51- 75	3	.05	3	.05					3	.05		*		*		
INSTRUCTION	26- 50	3	.05									7	.11*		*	3	.05
1964-65	01- 25	7	.11	27	.45	10	.16	17	.28	7	.11	13	.21*		*	10	.16
	NO RESP- 00	47	.78	30	.50	50	.83	43	.71	37	.61	37	.61*	20	.33*	47	.78
	TOTAL F	60		60		60		60		60		60	*	60	*	60	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100									10	.16			37	.60*		
AND INSTR.	51- 75			3	.05					7	.11			7	.11*		
PROJECTED	26- 50	7	.11	10	.16			3	.05	3	.05	10	.16		*	7	.11
1968-69	01- 25	10	.16	20	.33	20	.33	23	.38	13	.21	13	.21		*	13	.21
	NO RESP- 00	43	.71	27	.45	40	.66	33	.55	27	.45	37	.61	17	.27*	40	.66
	TOTAL F	60		60		60		59		60		60		61	*	60	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 2 LEVEL 4

SAMPLE SIZE 7 POP. SIZE 7

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50			1	.14									2	.28
	01- 25			2	.28	3	.42	3	.42	2	.28	3	.42	3	.42
	NO RESP-00	7	1.00	4	.57	4	.57	4	.57	5	.71	4	.57	2	.28
	TOTAL F	7		7		7		7		7		7		7	
UNDER-GRAD INSTRUCTION	76-100									1	.14			2	.28
	51- 75													1	.14
	26- 50			1	.14							2	.28	3	.42
	01- 25	1	.14	4	.57	4	.57	5	.71	1	.14	2	.28		
	NO RESP- 00	6	.85	2	.28	3	.42	2	.28	5	.71	3	.42	1	.14
	TOTAL F	7		7		7		7		7		7		7	

		COMP CTR F	COMP CTR RF
UNDER-GRAD INSTRUCTION	76-100		
	51- 75		
	26- 50		
	01- 25	2	.28
	NO RESP- 00	5	.71
	TOTAL F	7	

		LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D AND INSTRUCTION 1964-65	76-100		
	51- 75		
	26- 50		
	01- 25		
	NO RESP- 00	1	.14
	TOTAL F	6	.85
		7	

		EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100		
	51- 75		
	26- 50		
	01- 25		
	NO RESP- 00	2	.28
	TOTAL F	5	.71
		7	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 4 LEVEL 3

SAMPLE SIZE 33 POP. SIZE 116
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100														
GRADUATE	51- 75														
INSTRUCTION	26- 50									7	.06			14	.12
	01- 25			14	.12			14	.12	11	.09	11	.09	14	.12
	NO RESP-00	116	1.00	102	.87	116	1.00	102	.87	98	.84	105	.90	88	.75
	TOTAL F	116		116		116		116		116		116		116	
UNDER-GRAD	76-100			4	.03					4	.03	4	.03	14	.12
INSTRUCTION	51- 75											4	.03	7	.06
	26- 50			4	.03					11	.09			11	.09
	01- 25	4	.03	11	.09	7	.06	11	.09			14	.11		
	NO RESP- 00	112	.96	98	.83	109	.93	105	.90	102	.87	95	.81	84	.72
	TOTAL F	116		117		116		116		117		117		116	
TOTAL R&D	76-100			4	.03					11	.09	4	.03	32	.27
AND	51- 75			4	.03					4	.03	4	.03		
INSTRUCTION	26- 50			4	.03							4	.03		
1964-65	01- 25	4	.03	7	.05	7	.06	14	.12	4	.03	11	.09		
	NO RESP- 00	112	.96	98	.83	109	.93	102	.87	98	.83	95	.80	84	.72
	TOTAL F	116		117		116		116		117		118		116	
TOTAL R&D	76-100									11	.09	4	.03	35	.30
AND INSTR.	51- 75			11	.09							4	.03		
PROJECTED	26- 50			7	.06					14	.11	4	.03	11	.09
1968-69	01- 25	4	.03	14	.12	28	.24	28	.24	11	.09	25	.21		
	NO RESP- 00	112	.96	84	.72	88	.75	88	.75	81	.69	81	.68	70	.60
	TOTAL F	116		116		116		116		117		118		116	

	COMP CTR F	COMP CTR RF
	7	.06
	109	.93
	116	

	LIBR.SCI. F	LIBR.SCI. RF
	116	1.00
	116	

	EXTRA-INST. F	EXTRA-INST. RF
	11	.09
	105	.90
	116	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 4 LEVEL 4

SAMPLE SIZE 5 POP. SIZE 5
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25			1	.20	1	.20	2	.40			2	.40	1	.20
	NO RESP-00	5	1.00	4	.80	4	.80	3	.60	5	1.00	3	.60	3	.60
	TOTAL F	5		5		5		5		5		5		5	
UNDER-GRAD INSTRUCTION	76-100														
	51- 75													1	.20
	26- 50									1	.20	1	.20	1	.20
	01- 25							1	.20			1	.20		
	NO RESP- 00	5	1.00	5	1.00	5	1.00	4	.80	4	.80	3	.60	3	.60
	TOTAL F	5		5		5		5		5		5		5	
TOTAL R&D AND INSTRUCTION 1964-65	76-100														
	51- 75													1	.20
	26- 50									1	.20				
	01- 25			1	.20	1	.20	2	.40			1	.20		
	NO RESP- 00	5	1.00	4	.80	4	.80	3	.60	4	.80	3	.60	3	.60
	TOTAL F	5		5		5		5		5		5		5	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100														
	51- 75													2	.40
	26- 50											1	.20		
	01- 25			1	.20	1	.20	1	.20	1	.20				
	NO RESP- 00	5	1.00	4	.80	4	.80	3	.60	4	.80	3	.60	3	.60
	TOTAL F	5		5		5		5		5		5		5	

	CLASS LIMITS	COMP CTR F	COMP CTR RF	LIBR.SCI. F	LIBR.SCI. RF	EXTRA-INST. F	EXTRA-INST. RF
UNDER-GRAD INSTRUCTION	76-100						
	51- 75						
	26- 50						
	01- 25	1	.20				
	NO RESP- 00	4	.80	5	1.00	5	1.00
	TOTAL F	5		5		5	
TOTAL R&D AND INSTRUCTION 1964-65	76-100						
	51- 75						
	26- 50						
	01- 25						
	NO RESP- 00	5	1.00	5	1.00	5	1.00
	TOTAL F	5		5		5	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100						
	51- 75						
	26- 50						
	01- 25						
	NO RESP- 00	5	1.00	5	1.00	5	1.00
	TOTAL F	5		5		5	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 5 LEVEL 2

SAMPLE SIZE 5 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25	1	.16	1	.16					1	.16			1	.16
	NO RESP-00	5	.83	5	.83	6	1.00	6	1.00	5	.83	6	1.00	5	.83
	TOTAL F	6		6		6		6		6		6		6	
UNDER-GRAD INSTRUCTION	76-100													2	.33
	51- 75														
	26- 50	2	.33	1	.16										
	01- 25			1	.16	1	.16	1	.16	2	.33	2	.33		
	NO RESP- 00	4	.66	4	.66	5	.83	5	.83	4	.66	4	.66	4	.66
	TOTAL F	6		6		6		6		6		6		6	
TOTAL R&D AND INSTRUCTION 1964-65	76-100													2	.33
	51- 75														
	26- 50	2	.33	1	.16										
	01- 25			1	.16	1	.16	1	.16	2	.33	2	.33		
	NO RESP- 00	4	.66	4	.66	5	.83	5	.83	4	.66	4	.66	4	.66
	TOTAL F	6		6		6		6		6		6		6	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100													2	.33
	51- 75														
	26- 50	2	.33	1	.16										
	01- 25			1	.16	1	.16	2	.33	2	.33	2	.33		
	NO RESP- 00	4	.66	4	.66	5	.83	4	.66	4	.66	4	.66	4	.66
	TOTAL F	6		6		6		6		6		6		6	

	COMP CTR F	COMP CTR RF
	6	1.00
	6	

	LIBR.SCI. F	LIBR.SCI. RF
	6	1.00
	6	

	EXTRA-INST. F	EXTRA-INST. RF
	6	1.00
	6	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 5 LEVEL 3

SAMPLE SIZE 6 POP. SIZE 7
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100			1	.14									1	.14
	51- 75														
	26- 50														
	01- 25	1	.14												
	NO RESP-00	6	.85	6	.85	7	1.00	7	1.00	7	1.00	7	1.00	6	.85
	TOTAL F	7		7		7		7		7		7		7	
UNDER-GRAD INSTRUCTION	76-100	2	.33											5	.71
	51- 75	2	.33												
	26- 50											1	.14		
	01- 25	1	.16	1	.14	1	.14	1	.14			2	.28	1	.14
	NO RESP- 00	1	.16	6	.85	6	.85	6	.85	7	1.00	4	.57	1	.14
	TOTAL F	6		7		7		7		7		7		7	
TOTAL R&D AND INSTRUCTION 1964-65	76-100	2	.33	1	.14										
	51- 75	2	.33												
	26- 50											1	.14		
	01- 25	1	.16	1	.14	1	.14	1	.14			2	.28		
	NO RESP- 00	1	.16	5	.71	6	.85	6	.85	7	1.00	4	.57	1	.14
	TOTAL F	6		7		7		7		7		7		7	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100	1	.16	1	.14									6	.85
	51- 75	2	.33	1	.14										
	26- 50											1	.14		
	01- 25	2	.33	1	.14	2	.28	2	.28	1	.14	2	.28		
	NO RESP- 00	1	.16	4	.57	5	.71	5	.71	6	.85	4	.57	1	.14
	TOTAL F	6		7		7		7		7		7		7	

	COMP CTR F	COMP CTR RF
	1	.14
	6	.85
	7	

	LIBR.SCI. F	LIBR.SCI. RF
	7	1.00

	EXTRA-INST. F	EXTRA-INST. RF
	7	1.00

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 5 LEVEL 4

SAMPLE SIZE 6 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75													3	.50
	26- 50	2	.33	1	.16										
	01- 25	3	.50	3	.50	1	.16	1	.16	4	.66			2	.33
	NO RESP-00	1	.16	2	.33	5	.83	5	.83	2	.33	6	1.00	1	.16
	TOTAL F	6		6		6		6		6		6		6	
UNDER-GRAD INSTRUCTION	76-100	1	.16											1	.16
	51- 75														
	26- 50	2	.33											2	.33
	01- 25	1	.16	4	.66					1	.16			2	.33
	NO RESP- 00	2	.33	2	.33	6	1.00	6	1.00	5	.83	6	1.00	1	.16
	TOTAL F	6		6		6		6		6		6		6	
TOTAL R&D AND INSTRUCTION 1964-65	76-100	1	.16											5	.83
	51- 75	1	.16												
	26- 50	2	.33	2	.33					1	.16				
	01- 25	1	.16	3	.50	1	.16	1	.16	3	.50				
	NO RESP- 00	1	.16	1	.16	5	.83	5	.83	2	.33	6	1.00	1	.16
	TOTAL F	6		6		6		6		6		6		6	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100													6	1.00
	51- 75	2	.33												
	26- 50	2	.33	4	.66					1	.16	1	.16		
	01- 25	2	.33	2	.33	3	.50	3	.50	4	.66	1	.16		
	NO RESP- 00					3	.50	3	.50	1	.16	4	.66		
	TOTAL F	6		6		6		6		6		6		6	

	COMP CTR F	COMP CTR RF
	4	.66
	2	.33

	LIBR.SCI. F	LIBR.SCI. RF
	2	.33
	4	.66
	6	

	EXTRA-INST. F	EXTRA-INST. RF
	1	.16
	2	.33
	3	.50
	6	

INFORMATIUN IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 7 LEVEL 4

SAMPLE SIZE 8 POP. SIZE 8

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100					3	.37								
	51- 75			1	.12	1	.12							5	.62
	26- 50	1	.12			1	.12							1	.12
	01- 25					1	.12	2	.25	3	.37	1	.12		
	NO RESP-00	7	.87	7	.87	2	.25	6	.75	5	.62	7	.87	2	.25
	TOTAL F	8		8		8		8		8		8		8	
UNDER-GRAD INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25														
	NO RESP- 00	8	1.00	8	1.00	8	1.00	8	1.00	1	.12			1	.12
	TOTAL F	8		8		8		8		7	.87	8	1.00	7	.87
										8				8	
TOTAL R&D AND INSTRUCTION 1964-65	76-100					3	.37								
	51- 75			1	.12	1	.12							6	.75
	26- 50	1	.12			1	.12								
	01- 25					1	.12	2	.25	3	.37	1	.12		
	NO RESP- 00	7	.87	7	.87	2	.25	6	.75	5	.62	7	.87	2	.25
	TOTAL F	8		8		8		8		8		8		8	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100					3	.37								
	51- 75					2	.25							6	.75
	26- 50	1	.12	1	.12										
	01- 25	1	.12			1	.12	2	.25	4	.50	1	.12		
	NO RESP- 00	6	.75	7	.87	2	.25	6	.75	4	.50	7	.87	2	.25
	TOTAL F	8		8		8		8		8		8		8	

	COMP CTR F	COMP CTR RF
	2	.25
	6	.75
	8	

	LIBR.SCI. F	LIBR.SCI. RF
	1	.12
	7	.87
	8	

	EXTRA-INST. F	EXTRA-INST. RF
	8	1.00
	8	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE 8 LEVEL 1

SAMPLE SIZE 71 POP. SIZE 400
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100											6	.01	6	.01
	51- 75														
	26- 50														
	01- 25														
	NO RESP-00	400	1.00	400	1.00	400	1.00	400	1.00	400	1.00	394	.98	394	.98
	TOTAL F	400		400		400		400		400		400		400	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD INSTRUCTION	76-100	11	.02							51	.12	11	.02	90	.22		
	51- 75											11	.02				
	26- 50									17	.04	6	.01				
	01- 25	23	.05	17	.04					11	.02	6	.01			17	.04
	NO RESP- 00	366	.91	383	.95	400	1.00	400	1.00	321	.80	366	.91	310	.77	383	.95
	TOTAL F	400		400		400		400		400		400		400		400	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D AND INSTRUCTION 1964-65	76-100	11	.02							51	.12	17	.04	96	.24		
	51- 75											11	.02				
	26- 50									17	.04	6	.01				
	01- 25	23	.05	17	.04					11	.02	6	.01			6	.01
	NO RESP- 00	366	.91	383	.95	400	1.00	400	1.00	321	.80	361	.90	304	.76	394	.98
	TOTAL F	400		400		400		400		400		401		400		400	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100	11	.02							39	.09	28	.07	118	.29		
	51- 75									11	.02	11	.02				
	26- 50	6	.01							23	.05	11	.02				
	01- 25	34	.08	39	.09	23	.05	17	.04	17	.04	11	.02				
	NO RESP- 00	349	.87	361	.90	377	.94	383	.95	310	.77	338	.84	282	.70	400	1.00
	TOTAL F	400		400		400		400		400		399		400		400	

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F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE 9 LEVEL 1

SAMPLE SIZE 8 POP. SIZE 20

SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25														
	NO RESP-00	20	1.00	20	1.00	20	1.00	20	1.00	20	1.00	20	1.00	20	1.00
	TOTAL F	20		20		20		20		20		20		20	
UNDER-GRAD INSTRUCTION	76-100									8	.38			8	.38
	51- 75														
	26- 50														
	01- 25	5	.25												
	NO RESP- 00	15	.75	20	1.00	20	1.00	20	1.00	13	.61	20	1.00	13	.61
	TOTAL F	20		20		20		20		21		20		21	
TOTAL R&D AND INSTRUCTION 1964-65	76-100									8	.38			8	.38
	51- 75														
	26- 50														
	01- 25	5	.25												
	NO RESP- 00	15	.75	20	1.00	20	1.00	20	1.00	13	.61	20	1.00	13	.61
	TOTAL F	20		20		20		20		21		20		21	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100									5	.23			8	.38
	51- 75														
	26- 50					3	.14								
	01- 25	5	.25	3	.14			3	.14	3	.14				
	NO RESP- 00	15	.75	18	.85	18	.85	18	.85	13	.61	20	1.00	13	.61
	TOTAL F	20		21		21		21		21		20		21	

	COMP CTR F	COMP CTR RF
	20	1.00

	LIBR.SCI. F	LIBR.SCI. RF
	8	.38

	EXTRA-INST. F	EXTRA-INST. RF
	8	.38

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 1 LEVEL 3

SAMPLE SIZE 9 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100													1	.11
GRADUATE	51- 75			1	.11									1	.11
INSTRUCTION	26- 50					1	.11								
	01- 25	1	.11	3	.33	1	.11	3	.33	1	.11	2	.22	2	.22
	NO RESP-00	8	.88	5	.55	7	.77	6	.66	8	.88	7	.77	5	.55
	TOTAL F	9		9		9		9		9		9		9	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	1	.11									1	.11	2	.22		
INSTRUCTION	51- 75													1	.11		
	26- 50	1	.11											2	.22		
	01- 25	1	.11	5	.55	1	.11	3	.33	2	.22	2	.22	1	.11	3	.33
	NO RESP- 00	6	.66	4	.44	8	.88	6	.66	7	.77	6	.66	3	.33	6	.66
	TOTAL F	9		9		9		9		9		9		9		9	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100	1	.11									1	.11	6	.66		
AND	51- 75			1	.11												
INSTRUCTION	26- 50	1	.11	1	.11	1	.11										
1964-65	01- 25	1	.11	3	.33	1	.11	3	.33	2	.22	2	.22			1	.11
	NO RESP- 00	6	.66	4	.44	7	.77	6	.66	7	.77	6	.66	3	.33	8	.88
	TOTAL F	9		9		9		9		9		9		9		9	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100													5	.55		
AND INSTR.	51- 75			1	.11												
PROJECTED	26- 50	2	.22	1	.11					3	.33	1	.11	1	.11	1	.11
1968-69	01- 25	1	.11	4	.44	4	.44	5	.55			3	.33			1	.11
	NO RESP- 00	6	.66	3	.33	5	.55	4	.44	6	.66	5	.55	3	.33	7	.77
	TOTAL F	9		9		9		9		9		9		9		9	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE 1 LEVEL 4

SAMPLE SIZE 61 POP. SIZE 65
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *
R&D AND	76-100	1	.01	1	.01	2	.03			1	.01			21	.32*
GRADUATE	51- 75	1	.01	5	.07	1	.01			1	.01			17	.26*
INSTRUCTION	26- 50	7	.10	14	.21	2	.03	5	.07	1	.01	3	.04	12	.18*
	01- 25	21	.32	26	.40	28	.43	34	.52	13	.20	23	.35	2	.03*
	NO RESP-00	34	.53	19	.29	32	.49	26	.40	49	.75	38	.59	13	.20*
	TOTAL F	64		65		65		65		65		64		65	*
															*
UNDER-GRAD	76-100									1	.01			1	.01*
INSTRUCTION	51- 75													2	.03*
	26- 50	2	.03	3	.04			1	.01			1	.01	13	.20*
	01- 25	28	.43	30	.46	12	.18	20	.30	14	.21	15	.23	32	.49*
	NO RESP- 00	35	.53	32	.49	53	.81	44	.67	50	.76	49	.75	17	.26*
	TOTAL F	65		65		65		65		65		65		65	*
														**********	
														*	*
TOTAL R&D	76-100	1	.01	3	.04	2	.03			2	.03	1	.01*	53	.81*
AND	51- 75	2	.03	7	.10	1	.01	2	.03	1	.01		*		*
INSTRUCTION	26- 50	14	.21	19	.29	2	.03	3	.04	1	.01	2	.03*		*
1964-65	01- 25	17	.26	16	.25	30	.46	34	.52	18	.27	26	.40*		*
	NO RESP- 00	31	.47	19	.29	30	.46	26	.40	43	.66	36	.55*	12	.18*
	TOTAL F	65		64		65		65		65		65	*	65	*
														**********	
														*	*
TOTAL R&D	76-100	1	.01	4	.06	1	.01			2	.03	1	.01	48	.73*
AND INSTR.	51- 75			5	.07	1	.01			1	.01			5	.07*
PROJECTED	26- 50	12	.18	20	.31	5	.07	4	.06	2	.03	2	.03		*
1968-69	01- 25	21	.32	17	.26	34	.53	37	.57	27	.41	30	.46		*
	NO RESP- 00	31	.47	18	.28	23	.35	23	.35	33	.50	32	.49	12	.18*
	TOTAL F	65		64		64		64		65		65		65	*

COMP CTR F	COMP CTR RF
2	.03
27	.41
36	.55
65	

LIBR.SCI. F	LIBR.SCI. RF
2	.03
7	.10
55	.85
64	

EXTRA-INST. F	EXTRA-INST. RF
1	.01
21	.32
43	.66
65	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE 2 LEVEL 2

SAMPLE SIZE 81 POP. SIZE 508
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50			6	.01									6	.01
	01- 25					6	.01	6	.01			6	.01		
	NO RESP-00	508	1.00	502	.98	502	.98	502	.98	508	1.00	502	.98	502	.98
	TOTAL F	508		508		508		508		508		508		508	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD INSTRUCTION	76-100	6	.01	13	.02					6	.01	13	.02	56	.11		
	51- 75			6	.01									6	.01		
	26- 50	6	.01	19	.03					6	.01					19	.03
	01- 25					25	.04	25	.04	6	.01	25	.04				
	NO RESP- 00	495	.97	470	.92	483	.95	483	.95	489	.96	470	.92	445	.87	489	.96
	TOTAL F	507		508		508		508		507		508		507		508	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D AND INSTRUCTION 1964-65	76-100	6	.01	13	.02					6	.01	13	.02	63	.12		
	51- 75			13	.02												
	26- 50	6	.01	13	.02					6	.01						
	01- 25					25	.04	25	.04	6	.01	25	.04				
	NO RESP- 00	495	.97	470	.92	483	.95	483	.95	489	.96	470	.92	445	.87	508	1.00
	TOTAL F	507		509		508		508		507		508		508		508	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100	6	.01	13	.02							13	.02	63	.12		
	51- 75			13	.02					6	.01						
	26- 50	6	.01	13	.02					6	.01						
	01- 25					25	.04	31	.06	6	.01	25	.04				
	NO RESP- 00	495	.97	470	.92	483	.95	477	.93	489	.96	470	.92	445	.87	508	1.00
	TOTAL F	507		509		508		508		507		508		508		508	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE 2 LEVEL 3

SAMPLE SIZE 55 POP. SIZE 172
SAMPLE(LEFT COLUMN) PUPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100			3	.01									3	.01
GRADUATE	51- 75														
INSTRUCTION	26- 50														
	01- 25	9	.05	16	.09	9	.05	19	.11	9	.05	9	.05	13	.07
	NO RESP-00	163	.94	153	.88	163	.94	153	.88	163	.94	163	.94	16	.09
	TOTAL F	172		172		172		172		172		172		141	.81
														173	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	3	.01					3	.01	13	.07	3	.01	41	.23		
INSTRUCTION	51- 75			6	.03					3	.01			13	.07		
	26- 50	3	.01	13	.07			6	.03	3	.01			3	.01		
	01- 25	9	.05	22	.12	25	.14	28	.16	6	.03	19	.11	6	.03	16	.09
	NO RESP- 00	156	.91	131	.76	147	.85	134	.78	147	.85	150	.87	109	.63	156	.90
	TOTAL F	171		172		172		171		172		172		172		172	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100	3	.01	3	.01			3	.01	13	.07	3	.01	63	.36		
AND	51- 75			13	.07					3	.01						
INSTRUCTION	26- 50	6	.03	9	.05	3	.01	13	.07	3	.01						
1964-65	01- 25	6	.03	16	.09	22	.12	25	.14	6	.03	22	.12			6	.03
	NO RESP- 00	156	.91	131	.76	147	.85	131	.76	147	.85	147	.85	109	.63	166	.96
	TOTAL F	171		172		172		172		172		172		172		172	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100	3	.01	3	.01			3	.01	9	.05	3	.01	66	.38		
AND INSTR.	51- 75			9	.05					6	.03			6	.03		
PROJECTED	26- 50	3	.01	16	.09	3	.01	13	.07	6	.03						
1968-69	01- 25	16	.09	31	.18	41	.23	34	.19	16	.09	31	.18			6	.03
	NO RESP- 00	150	.87	113	.65	128	.74	122	.70	134	.78	138	.80	100	.58	166	.96
	TOTAL F	172		172		172		172		171		172		172		172	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN PUPULATION
RF = F /(TUTAL F)

CTL 2 TYPE 2 LEVEL 4

SAMPLE SIZE 20 POP. SIZE 22
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100														
GRADUATE	51- 75													3	.14
INSTRUCTION	26- 50	2	.09	2	.09									3	.14
	01- 25	2	.09	4	.19	2	.09	7	.31	2	.09	2	.09		
	NO RESP-00	18	.81	15	.71	20	.90	15	.68	20	.90	20	.90	15	.71
	TOTAL F	22		21		22		22		22		22		21	

	CLASS LIMITS	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	3	.14		
INSTRUCTION	51- 75	1	.04		
	26- 50	4	.19		
	01- 25	1	.04	4	.18
	NO RESP- 00	12	.57	18	.81
	TOTAL F	21		22	

	CLASS LIMITS	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100	10	.45		
AND	51- 75				
INSTRUCTION	26- 50				
1964-65	01- 25			1	.04
	NO RESP- 00	12	.54	21	.95
	TOTAL F	22		22	

	CLASS LIMITS	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100	9	.40		
AND INSTR.	51- 75	1	.04		
PROJECTED	26- 50				
1968-69	01- 25			3	.13
	NO RESP- 00	12	.54	19	.86
	TOTAL F	22		22	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE 5 LEVEL 2

SAMPLE SIZE 5 POP. SIZE 14
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25														
	NO RESP-00	14	1.00	14	1.00	14	1.00	14	1.00	14	1.00	14	1.00	14	1.00
	TOTAL F	14		14		14		14		14		14		14	
UNDER-GRAD INSTRUCTION	76-100	3	.21											6	.42
	51- 75														
	26- 50	3	.21									3	.21		
	01- 25			6	.42			3	.21	3	.21				
	NO RESP- 00	8	.57	8	.57	14	1.00	11	.78	11	.78	11	.78	8	.57
	TOTAL F	14		14		14		14		14		14		14	
TOTAL R&D AND INSTRUCTION 1964-65	76-100	3	.21												
	51- 75														
	26- 50	3	.21									3	.21		
	01- 25			6	.42			3	.21	3	.21				
	NO RESP- 00	8	.57	8	.57	14	1.00	11	.78	11	.78	11	.78	8	.57
	TOTAL F	14		14		14		14		14		14		14	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100	3	.21												
	51- 75														
	26- 50											3	.21		
	01- 25	3	.21	6	.42			3	.21	3	.21				
	NO RESP- 00	8	.57	8	.57	14	1.00	11	.78	11	.78	11	.78	8	.57
	TOTAL F	14		14		14		14		14		14		14	

	COMP CTR F	COMP CTR RF
	3	.21
	11	.78
	14	

	LIBR.SCI. F	LIBR.SCI. RF
	6	.42
	14	1.00
	14	

	EXTRA-INST. F	EXTRA-INST. RF
	6	.42
	14	1.00
	14	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE 5 LEVEL 3

SAMPLE SIZE 5 POP. SIZE 6
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100	2	.40											2	.40
	51- 75														
	26- 50														
	01- 25	1	.20	2	.33					1	.16	2	.33	2	.40
	NO RESP-00	2	.40	4	.66	6	1.00	6	1.00	5	.83	4	.66	1	.20
	TOTAL F	5		6		6		6		6		6		5	
UNDER-GRAD INSTRUCTION	76-100													1	.20
	51- 75	2	.33											1	.20
	26- 50														
	01- 25			2	.33					1	.16	1	.16	1	.20
	NO RESP- 00	4	.66	4	.66	6	1.00	6	1.00	5	.83	5	.83	2	.40
	TOTAL F	6		6		6		6		6		6		5	
TOTAL R&D AND INSTRUCTION 1964-65	76-100	2	.40												
	51- 75	2	.40											5	.83
	26- 50														
	01- 25			2	.33					1	.16	2	.33		
	NO RESP- 00	1	.20	4	.66	6	1.00	6	1.00	5	.83	4	.66	1	.16
	TOTAL F	5		6		6		6		6		6		6	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100	2	.40												
	51- 75	2	.40											5	.83
	26- 50														
	01- 25			2	.33					1	.16	2	.33		
	NO RESP- 00	1	.20	4	.66	6	1.00	6	1.00	5	.83	4	.66	1	.16
	TOTAL F	5		6		6		6		6		6		6	

	COMP CTR F	COMP CTR RF
	1	.16
	5	.83
	6	

	LIBR.SCI. F	LIBR.SCI. RF
	1	.16
	5	.83
	6	

	EXTRA-INST. F	EXTRA-INST. RF
	1	.16
	5	.83
	6	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE 5 LEVEL 4

SAMPLE SIZE 7 POP. SIZE 9
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100														
GRADUATE	51- 75	1	.12											5	.55
INSTRUCTION	26- 50	1	.12	1	.12									1	.11
	01- 25	6	.75	6	.75	4	.44	3	.33	5	.55	3	.33	3	.33
	NO RESP-00			1	.12	5	.55	6	.66	4	.44	6	.66		
	TOTAL F	8		8		9		9		9		9		9	
UNDER-GRAD	76-100														
INSTRUCTION	51- 75													3	.29
	26- 50	3	.33	1	.12					1	.12	1	.11	4	.40
	01- 25	6	.66	6	.75					6	.75	3	.33	3	.29
	NO RESP- 00			1	.12	9	1.00	9	1.00	1	.12	5	.55		
	TOTAL F	9		8		9		9		8		9		10	
TOTAL R&D	76-100	1	.12												
AND	51- 75	1	.12	1	.12									9	1.00
INSTRUCTION	26- 50	5	.62	1	.12					3	.33	1	.11		
1964-65	01- 25	1	.12	5	.62	4	.44	3	.33	5	.55	3	.33		
	NO RESP- 00			1	.12	5	.55	6	.66	1	.11	5	.55		
	TOTAL F	8		8		9		9		9		9		9	
TOTAL R&D	76-100	1	.12												
AND INSTR.	51- 75			1	.12									8	.88
PROJECTED	26- 50	6	.75	1	.12					3	.33	1	.11	1	.11
1968-69	01- 25	1	.12	5	.62	5	.55	3	.33	5	.55	5	.55		
	NO RESP- 00			1	.12	4	.44	6	.66	1	.11	3	.33		
	TOTAL F	8		8		9		9		9		9		9	

	COMP CTR F	COMP CTR RF
	4	.44
	5	.55
	9	

	LIBR.SCI. F	LIBR.SCI. RF
	1	.11
	8	.88
	9	

	EXTRA-INST. F	EXTRA-INST. RF
	3	.33
	6	.66
	9	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE 7 LEVEL 3

SAMPLE SIZE 11 PUP. SIZE 13
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25							1	.07			1	.07	2	.15
	NO RESP-00	13	1.00	13	1.00	13	1.00	12	.92	13	1.00	12	.92	11	.84
	TOTAL F	13		13		13		13		13		13		13	
UNDER-GRAD INSTRUCTION	76-100							1	.08					4	.30
	51- 75	1	.07									1	.07		
	26- 50														
	01- 25			2	.15			2	.16	1	.07				
	NO RESP- 00	12	.92	11	.84	13	1.00	9	.75	12	.92	12	.92	9	.69
	TOTAL F	13		13		13		12		13		13		13	
TOTAL R&D AND INSTRUCTION 1964-65	76-100							1	.08					4	.30
	51- 75	1	.07									1	.07		
	26- 50														
	01- 25			2	.15			2	.16	1	.07				
	NO RESP- 00	12	.92	11	.84	13	1.00	9	.75	12	.92	12	.92	9	.69
	TOTAL F	13		13		13		12		13		13		13	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100							1	.08					4	.30
	51- 75														
	26- 50	1	.07									1	.07		
	01- 25			2	.15	1	.07	2	.16	1	.07				
	NO RESP- 00	12	.92	11	.84	12	.92	9	.75	12	.92	12	.92	9	.69
	TOTAL F	13		13		13		12		13		13		13	

	COMP CTR F	COMP CTR RF
	13	1.00
	13	

	LIBR.SCI. F	LIBR.SCI. RF
	4	.30
	13	1.00
	13	

	EXTRA-INST. F	EXTRA-INST. RF
	1	.07
	12	.92
	13	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE 7 LEVEL 4

SAMPLE SIZE 9 POP. SIZE 11
SAMPLE(LEFT COLUMN) POPULATION(RIGHT COLUMN)

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100					2	.20							4	.36
GRADUATE	51- 75					2	.20							1	.09
INSTRUCTION	26- 50														
	01- 25									1	.09	1	.09		
	NO RESP-00	11	1.00	11	1.00	6	.60	11	1.00	10	.90	10	.90	6	.54
	TOTAL F	11		11		10		11		11		11		11	

	CLASS LIMITS	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100		
INSTRUCTION	51- 75		
	26- 50		
	01- 25	1	.09
	NO RESP- 00	1	.09
	TOTAL F	9	.81
		11	

	CLASS LIMITS	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100		
AND	51- 75	5	.45
INSTRUCTION	26- 50		
1964-65	01- 25		
	NO RESP- 00	2	.18
	TOTAL F	9	.81
		11	

	CLASS LIMITS	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100		
AND INSTR.	51- 75	4	.36
PROJECTED	26- 50	1	.09
1968-69	01- 25		
	NO RESP- 00	1	.09
	TOTAL F	10	.90
		11	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE X LEVEL 1

COMBINED SAMPLE SIZE 82 POP. SIZE 428
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100											6	.01	6	.01
	51- 75														
	26- 50														
	01- 25														
	NO RESP-00	428	1.00	428	1.00	428	1.00	428	1.00	428	1.00	422	.98	422	.98
	TOTAL F	428		428		428		428		428		428		428	
UNDER-GRAD INSTRUCTION	76-100	11	.02							59	.13	11	.02	98	.22
	51- 75											11	.02		
	26- 50									17	.03	6	.01		
	01- 25	28	.06	17	.03					11	.02	6	.01		
	NO RESP- 00	389	.90	411	.96	428	1.00	428	1.00	342	.79	394	.92	331	.77
	TOTAL F	428		428		428		428		429		428		429	
TOTAL R&D AND INSTRUCTION 1964-65	76-100	11	.02							59	.13	17	.03	104	.24
	51- 75											11	.02		
	26- 50									17	.03	6	.01		
	01- 25	28	.06	17	.03					11	.02	6	.01		
	NO RESP- 00	389	.90	411	.96	428	1.00	428	1.00	342	.79	389	.90	325	.75
	TOTAL F	428		428		428		428		429		429		429	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100	11	.02							44	.10	28	.06	126	.29
	51- 75									11	.02	11	.02		
	26- 50	6	.01			3				23	.05	11	.02		
	01- 25	39	.09	42	.09	23	.05	20	.04	20	.04	11	.02		
	NO RESP- 00	372	.86	387	.90	403	.93	409	.95	331	.77	366	.85	303	.70
	TOTAL F	428		429		429		429		429		427		429	

	COMP CTR F	COMP CTR RF
	411	.96
	428	

	LIBR.SCI. F	LIBR.SCI. RF
	6	.01
	422	.98
	428	

	EXTRA-INST. F	EXTRA-INST. RF
	428	1.00
	428	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE X LEVEL 2

COMBINED SAMPLE SIZE 27 POP. SIZE 92
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND GRADUATE INSTRUCTION	76-100														
	51- 75														
	26- 50														
	01- 25	1	.01	1	.01					1	.01			1	.01
	NO RESP-00	91	.98	91	.98	92	1.00	92	1.00	91	.98	92	1.00	91	.98
	TOTAL F	92		92		92		92		92		92		92	
UNDER-GRAD INSTRUCTION	76-100			8	.08									18	.19
	51- 75									4	.04				
	26- 50	2	.02	1	.01					4	.04	4	.04		
	01- 25	8	.08	1	.01	1	.01	1	.01	2	.02	6	.06		
	NO RESP- 00	82	.89	82	.89	91	.98	91	.98	82	.89	82	.89	74	.80
	TOTAL F	92		92		92		92		92		92		92	
TOTAL R&D AND INSTRUCTION 1964-65	76-100			8	.08									18	.19
	51- 75									4	.04				
	26- 50	2	.02	1	.01					4	.04	4	.04		
	01- 25	8	.08	1	.01	1	.01	1	.01	2	.02	6	.06		
	NO RESP- 00	82	.89	82	.89	91	.98	91	.98	82	.89	82	.89	74	.80
	TOTAL F	92		92		92		92		92		92		92	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100			8	.08			1	.01					23	.25
	51- 75	4	.04												
	26- 50	2	.02	1	.01					8	.08	4	.04		
	01- 25	8	.08	9	.09	5	.05	6	.06	6	.06	6	.06		
	NO RESP- 00	78	.84	74	.80	87	.94	85	.92	78	.84	82	.89	69	.75
	TOTAL F	92		92		92		92		92		92		92	

	COMP CTR F	COMP CTR RF
	92	1.00
	92	

	LIBR.SCI. F	LIBR.SCI. RF
	92	1.00
	92	

	EXTRA-INST. F	EXTRA-INST. RF
	92	1.00
	92	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 1 TYPE X LEVEL 3

COMBINED SAMPLE SIZE 62 POP. SIZE 188
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100			1								3	.01	5	.02*
GRADUATE	51- 75			4	.02									7	.03*
INSTRUCTION	26- 50									10	.05			20	.10*
	01- 25	12	.06	36	.19	5	.02	25	.13	19	.10	19	.10	27	.14*
	NO RESP-00	176	.93	147	.78	183	.97	163	.86	159	.84	166	.88	128	.68*
	TOTAL F	188		188		188		188		188		188		187	*

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	2	.01	4	.02					17	.08	4	.02	33	.17*		
INSTRUCTION	51- 75	2	.01									4	.02	14	.07*		
	26- 50	7	.03	4	.02			1		14	.07	5	.02	26	.13*	1	
	01- 25	13	.06	34	.17	19	.10	27	.14	9	.04	34	.17	6	.03*	25	.13
	NO RESP- 00	164	.87	147	.77	169	.89	160	.85	149	.78	142	.75	108	.57*	162	.86
	TOTAL F	188		189		188		188		189		189		187	*	188	

	CLASS LIMITS	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
		**********		LIBR.SCI.	
		*	*	F	RF
TOTAL R&D	76-100	83	.44*		
AND	51- 75		*		
INSTRUCTION	26- 50		*	3	.01
1964-65	01- 25		*	10	.05
	NO RESP- 00	105	.55*	175	.93
	TOTAL F	188	*	188	

	CLASS LIMITS	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
		**********		EXTRA-INST.	
		*	*	F	RF
TOTAL R&D	76-100	83	.43*		
AND INSTR.	51- 75	7	.03*		
PROJECTED	26- 50	11	.05*	7	.03
1968-69	01- 25		*	24	.12
	NO RESP- 00	88	.46*	157	.83
	TOTAL F	189	*	188	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 1 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 123 POP. SIZE 132
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *
R&D AND	76-100			1		5	.03							37	.28*
GRADUATE	51- 75			9	.06	1								39	.29*
INSTRUCTION	26- 50	24	.18	18	.13	8	.06	2	.01			4	.03	27	.20*
	01- 25	58	.43	67	.50	78	.59	87	.65	46	.34	70	.53	10	.07*
	NO RESP-00	51	.38	37	.28	40	.30	43	.32	86	.65	57	.43	19	.14*
	TOTAL F	133		132		132		132		132		131		132	*

															* COMP CTR
UNDER-GRAD	76-100	2	.01							2	.01			6	.04* F RF
INSTRUCTION	51- 75									2	.01	1		7	.05*
	26- 50	12	.09	1				1		1		3	.02	33	.25* 8 .06
	01- 25	61	.46	67	.50	42	.31	46	.35	46	.34	39	.29	57	.43* 66 .49
	NO RESP- 00	57	.43	64	.48	90	.68	84	.64	81	.61	89	.67	28	.21* 59 .44
	TOTAL F	132		132		132		131		132		132		131	* 133

														**********	LIBR.SCI.
TOTAL R&D	76-100	3	.02	1		5	.03	1		2	.01	1		*	* F RF
AND	51- 75	9	.06	10	.07	2	.01			2	.01	1		* 115	.87*
INSTRUCTION	26- 50	33	.24	30	.22	9	.06	4	.03	4	.03	11	.08*	*	*
1964-65	01- 25	39	.29	58	.43	77	.58	85	.64	52	.39	67	.50*	*	* 28 .21
	NO RESP- 00	49	.36	33	.25	39	.29	41	.31	72	.54	52	.39*	17	.12* 104 .78
	TOTAL F	133		132		132		131		132		132		* 132	* 132

														**********	EXTRA-INST.
TOTAL R&D	76-100			1		3	.02			2	.01			*	* F RF
AND INSTR.	51- 75	6	.04	3	.02	5	.03					1		101	.76*
PROJECTED	26- 50	31	.23	31	.23	6	.04	5	.03	11	.08	10	.07	11	.08*
1968-69	01- 25	50	.38	67	.51	86	.65	93	.70	79	.59	68	.51	2	.01* 3 .02
	NO RESP- 00	44	.33	29	.22	32	.24	34	.25	40	.30	53	.40	*	* 51 .38
	TOTAL F	131		131		132		132		132		132		18	.13* 78 .59
														132	* 132

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE X LEVEL 2

COMBINED SAMPLE SIZE 115 POP. SIZE 702
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100														
GRADUATE	51- 75														
INSTRUCTION	26- 50			6										6	
	01- 25					6		6				6			
	NO RESP-00	702	1.00	696	.99	696	.99	696	.99	702	1.00	696	.99	696	.99
	TOTAL F	702		702		702		702		702		702		702	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	13	.01	13	.01					6		13	.01	66	.09		
INSTRUCTION	51- 75			6										6			
	26- 50	9	.01	19	.02					6		3					
	01- 25			6		25	.03	28	.03	9	.01	29	.04			22	.03
	NO RESP- 00	679	.96	658	.93	677	.96	674	.96	680	.97	657	.93	629	.89	680	.96
	TOTAL F	701		702		702		702		701		702		701		702	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100	13	.01	13	.01					6		13	.01	73	.10		
AND	51- 75			13	.01												
INSTRUCTION	26- 50	9	.01	13	.01					6		3					
1964-65	01- 25			6		25	.03	28	.03	9	.01	29	.04				
	NO RESP- 00	679	.96	658	.93	677	.96	674	.96	680	.97	657	.93	629	.89	702	1.00
	TOTAL F	701		703		702		702		701		702		702		702	

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100	9	.01	13	.01							13	.01	73	.10		
AND INSTR.	51- 75			13	.01					6		3					
PROJECTED	26- 50	10	.01	13	.01					6		4					
1968-69	01- 25	3		10	.01	25	.03	38	.05	9	.01	25	.03				
	NO RESP- 00	679	.96	654	.93	677	.96	664	.94	680	.97	657	.93	629	.89	702	1.00
	TOTAL F	701		703		702		702		701		702		702		702	

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F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BUARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL 2 TYPE X LEVEL 3

COMBINED SAMPLE SIZE 96 POP. SIZE 278
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *	COMP CTR F	COMP CTR RF
R&D AND	76-100	2		3	.01									6	.02*		
GRADUATE	51- 75			1										1	*		
INSTRUCTION	26- 50					1								13	.04*		
	01- 25	11	.03	21	.07	10	.03	23	.08	11	.03	14	.05	22	.07*		
	NO RESP-00	264	.95	253	.91	267	.96	255	.91	267	.96	264	.94	236	.84*		
	TOTAL F	277		278		278		278		278		278		278	*		
															*	COMP CTR	
															*	F	RF
UNDER-GRAD	76-100	4	.01					4	.01	13	.04	4	.01	48	.17*		
INSTRUCTION	51- 75	3	.01	6	.02					3	.01	1		15	.05*		
	26- 50	4	.01	13	.04			6	.02	3	.01			5	.01*		
	01- 25	10	.03	31	.11	26	.09	33	.11	10	.03	22	.07	8	.02*	20	.07
	NO RESP- 00	256	.92	228	.82	252	.90	233	.84	249	.89	251	.90	201	.72*	258	.92
	TOTAL F	277		278		278		276		278		278		277	*	278	
														**********		LIBR.SCI.	
														*	*	F	RF
TOTAL R&D	76-100	6	.02	3	.01			4	.01	13	.04	4	.01*	78	.28*		
AND	51- 75	3	.01	14	.05					3	.01	1	*		*		
INSTRUCTION	26- 50	7	.02	10	.03	4	.01	13	.04	3	.01		*		*		
1964-65	01- 25	7	.02	23	.08	23	.08	30	.10	10	.03	26	.09*		*	8	.02
	NO RESP- 00	253	.91	228	.82	251	.90	230	.83	249	.89	247	.88*	200	.71*	270	.97
	TOTAL F	276		278		278		277		278		278	*	278	*	278	
														**********		EXTRA-INST.	
														*		F	RF
TOTAL R&D	76-100	5	.01	3	.01			4	.01	9	.03	3	.01	80	.28*		
AND INSTR.	51- 75	2		10	.03					6	.02			6	.02*		
PROJECTED	26- 50	6	.02	17	.06	3	.01	13	.04	9	.03	2		1	*	1	
1968-69	01- 25	17	.06	39	.14	46	.16	41	.14	18	.06	36	.12		*	9	.03
	NO RESP- 00	247	.89	209	.75	229	.82	219	.79	235	.84	237	.85	191	.68*	268	.96
	TOTAL F	277		278		278		277		277		278		278	*	278	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL 2 TYPE X LEVEL 4

COMBINED SAMPLE SIZE 104 POP. SIZE 137
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100	1		1		4	.02			1				25	.18
GRADUATE	51- 75	2	.01	5	.03	3	.02			1				26	.19
INSTRUCTION	26- 50	10	.07	17	.12	2	.01	5	.03	1		3	.02	16	.11
	01- 25	29	.21	36	.26	34	.25	44	.32	21	.15	29	.21	5	.03
	NO RESP-00	93	.68	76	.56	93	.68	88	.64	113	.82	104	.76	64	.47
	TOTAL F	135		135		136		137		137		136		136	

	CLASS LIMITS	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	1		7	.05
INSTRUCTION	51- 75	1		3	.02
	26- 50	2	.01	21	.15
	01- 25	4	.02	36	.26
	NO RESP- 00	23	.16	70	.51
	TOTAL F	21	.15	137	

	CLASS LIMITS	TOTAL F	TOTAL RF	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100	1		77	.56
AND	51- 75				
INSTRUCTION	26- 50	5	.03	2	.01
1964-65	01- 25	34	.25	11	.08
	NO RESP- 00	96	.70	123	.90
	TOTAL F	136		136	

	CLASS LIMITS	TOTAL F	TOTAL RF	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100	1		69	.50
AND INSTR.	51- 75			8	.05
PROJECTED	26- 50	4	.02		
1968-69	01- 25	40	.29	28	.20
	NO RESP- 00	92	.67	108	.78
	TOTAL F	137		137	

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F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL 1

COMBINED SAMPLE SIZE 141 POP. SIZE 688

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION
POPULATION ESTIMATES

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF	COMP CTR F	COMP CTR RF
R&D AND GRADUATE INSTRUCTION	76-100																
	51- 75											6		6			
	26- 50																
	01- 25																
	NO RESP-00	688	1.00	688	1.00	688	1.00	688	1.00	688	1.00	682	.99	682	.99		
	TOTAL F	688		688		688		688		688		688		688			
UNDER-GRAD INSTRUCTION	76-100	11	.01														
	51- 75									60	.08	11	.01	99	.14		
	26- 50											11	.01				
	01- 25	28	.04	17	.02					17	.02	6					
	NO RESP- 00	649	.94	671	.97	688	1.00	688	1.00	11	.01	6				18	.02
	TOTAL F	688		688		688		688		601	.87	654	.95	590	.85	670	.97
										689		688		689		688	
														**********		LIBR.SCI.	
TOTAL R&D AND INSTRUCTION 1964-65	76-100	11	.01											*		F	RF
	51- 75									60	.08	17	.02	* 105	.15		
	26- 50											11	.01	*			
	01- 25	28	.04	17	.02					17	.02	6		*			
	NO RESP- 00	649	.94	671	.97	688	1.00	688	1.00	11	.01	6		*		6	
	TOTAL F	688		688		688		688		601	.87	649	.94	* 584	.84	682	.99
										689		689		* 689		688	
														**********		EXTRA-INST.	
TOTAL R&D AND INSTR. PROJECTED 1968-69	76-100	11	.01											*		F	RF
	51- 75									45	.06	33	.04	132	.19		
	26- 50	6				3				11	.01	11	.01				
	01- 25	39	.05	42	.06	23	.03	20	.02	23	.03	11	.01				
	NO RESP- 00	632	.91	647	.93	663	.96	669	.97	20	.02	11	.01				
	TOTAL F	688		689		689		689		590	.85	621	.90	557	.80	688	1.00
										689		687		689		688	

INFORMATION IN CELL ENCLOSED BY ASTERISKS INCLUDES THREE CELLS ON RIGHT OF COLUMN OF ASTERISKS AS WELL AS THE TWO ABOVE IT.

F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL 2

COMBINED SAMPLE SIZE 142 POP. SIZE 794
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF		
R&D AND	76-100																
GRADUATE	51- 75																
INSTRUCTION	26- 50			6										6			
	01- 25	1		1		6		6		1		6		1			
	NO RESP-00	793	.99	787	.99	788	.99	788	.99	793	.99	788	.99	787	.99		
	TOTAL F	794		794		794		794		794		794		794			
																COMP	CTR
																F	RF
UNDER-GRAD	76-100	13	.01	21	.02					6		13	.01	84	.10		
INSTRUCTION	51- 75			6						4				6			
	26- 50	11	.01	20	.02					10	.01	7					
	01- 25	8	.01	7		26	.03	29	.03	11	.01	35	.04			22	.02
	NO RESP- 00	761	.95	740	.93	768	.96	765	.96	762	.96	739	.93	703	.88	772	.97
	TOTAL F	793		794		794		794		793		794		793		794	
														**********		LIBR.SCI.	
																F	RF
TOTAL R&D	76-100	13	.01	21	.02					6		13	.01	91	.11		
AND	51- 75			13	.01					4							
INSTRUCTION	26- 50	11	.01	14	.01					10	.01	7					
1964-65	01- 25	8	.01	7		26	.03	29	.03	11	.01	35	.04				
	NO RESP- 00	761	.95	740	.93	768	.96	765	.96	762	.96	739	.93	703	.88	794	1.00
	TOTAL F	793		795		794		794		793		794		794		794	
														**********		EXTRA-INST.	
																F	RF
TOTAL R&D	76-100	9	.01	21	.02			1				13	.01	96	.12		
AND INSTR.	51- 75	4		13	.01					6		3					
PROJECTED	26- 50	12	.01	14	.01					14	.01	8	.01				
1968-69	01- 25	11	.01	19	.02	30	.03	44	.05	15	.01	31	.03				
	NO RESP- 00	757	.95	728	.91	764	.96	749	.94	758	.95	739	.93	698	.87	794	1.00
	TOTAL F	793		795		794		794		793		794		794		794	

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F = EST. OF FREQUENCY IN POPULATION
RF = F /(TOTAL F)

CTL X TYPE X LEVEL 3

COMBINED SAMPLE SIZE 158 POP. SIZE 466
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *		
R&D AND	76-100	2		4								3		11	.02*		
GRADUATE	51- 75			5	.01									8	.01*		
INSTRUCTION	26- 50					1				10	.02			33	.07*		
	01- 25	23	.04	57	.12	15	.03	48	.10	30	.06	33	.07	49	.10*		
	NO RESP-00	440	.94	400	.85	450	.96	418	.89	426	.91	430	.92	364	.78*		
	TOTAL F	465		466		466		466		466		466		465	*		
															*	COMP	CTR
UNDER-GRAD	76-100	6	.01	4				4		30	.06	8	.01	81	.17*	F	RF
INSTRUCTION	51- 75	5	.01	6	.01					3		5	.01	29	.06*		
	26- 50	11	.02	17	.03			7	.01	17	.03	5	.01	31	.06*	1	
	01- 25	23	.04	65	.13	45	.09	60	.12	19	.04	56	.11	14	.03*	45	.09
	NO RESP- 00	420	.90	375	.80	421	.90	393	.84	398	.85	393	.84	309	.66*	420	.90
	TOTAL F	465		467		466		464		467		467		464	*	466	
														**********		LIBR.SCI.	
														*	*	F	RF
TOTAL R&D	76-100	8	.01	8	.01			4		37	.07	11	.02*	161	.34*		
AND	51- 75	8	.01	22	.04					10	.02	5	.01*		*		
INSTRUCTION	26- 50	11	.02	14	.02	5	.01	15	.03	3		14	.02*		*	3	
1964-65	01- 25	19	.04	60	.12	42	.09	65	.13	23	.04	52	.11*		*	18	.03
	NO RESP- 00	417	.90	363	.77	419	.89	381	.81	394	.84	386	.82*	305	.65*	445	.95
	TOTAL F	463		467		466		465		467		468	*	466	*	466	
														**********		EXTRA-INST.	
														*		F	RF
TOTAL R&D	76-100	6	.01	4				4		30	.06	7	.01	163	.34*		
AND INSTR.	51- 75	4		25	.05					13	.02	5	.01	13	.02*		
PROJECTED	26- 50	14	.03	34	.07	4		17	.03	27	.05	18	.03	12	.02*	8	.01
1968-69	01- 25	33	.07	78	.16	99	.21	98	.21	46	.09	78	.16		*	33	.07
	NO RESP- 00	407	.87	325	.69	363	.77	345	.74	350	.75	360	.76	279	.59*	425	.91
	TOTAL F	464		466		466		464		466		468		467	*	466	

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CTL X TYPE X LEVEL 4

COMBINED SAMPLE SIZE 227 POP. SIZE 269
POPULATION ESTIMATES

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL F	TOTAL RF
R&D AND	76-100	1		2		9	.03			1				62	.23*
GRADUATE	51- 75	2		14	.05	4	.01			1				65	.24*
INSTRUCTION	26- 50	34	.12	35	.13	10	.03	7	.02	1		7	.02	43	.16*
	01- 25	87	.32	103	.38	112	.41	131	.48	67	.24	99	.37	15	.05*
	NO RESP-00	144	.53	113	.42	133	.49	131	.48	199	.73	161	.60	83	.30*
	TOTAL F	268		267		268		269		269		267		268	*

	CLASS LIMITS	TOTAL * F	TOTAL * RF *	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	13	.04*		
INSTRUCTION	51- 75	10	.03*		
	26- 50	54	.20*	11	.04
	01- 25	93	.34*	102	.37
	NO RESP- 00	98	.36*	157	.58
	TOTAL F	268	*	270	

	CLASS LIMITS	LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100	192	.71*
AND	51- 75		
INSTRUCTION	26- 50		2
1964-65	01- 25		39 .14
	NO RESP- 00	77	.28* 227 .84
	TOTAL F	269	* 268

	CLASS LIMITS	EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100	170	.63*
AND INSTR.	51- 75	19	.07*
PROJECTED	26- 50	2	* 4 .01
1968-69	01- 25		* 79 .29
	NO RESP- 00	78	.28* 186 .69
	TOTAL F	269	* 269

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1964-65 COMPUTER SURVEY SOUTHERN REGIONAL EDUCATION BOARD COMPUTER SCIENCES PROJECT
CONTRACT NSF C465

CTL X TYPE X LEVEL X

COMBINED SAMPLE SIZE 669 POP. SIZE 2219

ITEM VII UTILIZATION OF DIGITAL COMPUTERS FOR RESEARCH DEVELOPMENT AND EDUCATION
POPULATION ESTIMATES

	CLASS LIMITS	ENG F	ENG RF	PHYS.SCI. F	PHYS.SCI. RF	LIFE SCI. F	LIFE SCI. RF	SOC.SCI. F	SOC.SCI. RF	COMP.SCI. F	COMP.SCI. RF	OTHER F	OTHER RF	TOTAL * F	TOTAL * RF *		
R&D AND	76-100	3		6		9				1		9		79	.03*		
GRADUATE	51- 75	2		19		4				1				73	.03*		
INSTRUCTION	26- 50	34	.01	41	.01	11		7		11		7		82	.03*		
	01- 25	111	.05	161	.07	133	.05	185	.08	98	.04	138	.06	65	.02*		
	NO RESP-00	2067	.93	1990	.89	2061	.92	2027	.91	2108	.94	2063	.93	1918	.86*		
	TOTAL F	2217		2217		2218		2219		2219		2217		2217	*		
															*	COMP CTR F	COMP CTR RF
UNDER-GRAD	76-100	32	.01	25	.01			4		99	.04	32	.01	277	.12*		
INSTRUCTION	51- 75	5		12						10		17		45	.02*		
	26- 50	41	.01	43	.01			10		47	.02	25	.01	85	.03*	12	
	01- 25	156	.07	200	.09	132	.05	162	.07	110	.04	157	.07	107	.04*	187	.08
	NO RESP- 00	1983	.89	1939	.87	2087	.94	2040	.92	1953	.88	1989	.89	1702	.76*	2021	.91
	TOTAL F	2217		2219		2219		2216		2219		2220		2216	*	2220	
														**********		LIBR.SCI. F	LIBR.SCI. RF
TOTAL R&D	76-100	38	.01	33	.01	9		5		107	.04	43	.01*	549	.24*		
AND	51- 75	22		55	.02	5		2		18		17					
INSTRUCTION	26- 50	75	.03	79	.03	16		24	.01	39	.01	43	.01*			5	
1964-65	01- 25	112	.05	169	.07	186	.08	222	.10	124	.05	194	.08*			63	.02
	NO RESP- 00	1968	.88	1883	.84	2002	.90	1964	.88	1932	.87	1924	.86*	1671	.75*	2150	.96
	TOTAL F	2215		2219		2218		2217		2220		2221		2220	*	2218	
														**********		EXTRA-INST. F	EXTRA-INST. RF
TOTAL R&D	76-100	29	.01	30	.01	5		5		79	.03	54	.02	561	.25*		
AND INSTR.	51- 75	15		47	.02	10				33	.01	20		32	.01*		
PROJECTED	26- 50	82	.03	104	.04	18		28	.01	81	.03	51	.02	14	*	12	
1968-69	01- 25	156	.07	233	.10	285	.12	299	.13	200	.09	228	.10		*	112	.05
	NO RESP- 00	1932	.87	1803	.81	1901	.85	1884	.85	1825	.82	1867	.84	1614	.72*	2095	.94
	TOTAL F	2214		2217		2219		2216		2218		2220		2221	*	2219	

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